American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005

Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 15, No. 10

NOVEMBER 13, 1991

OCTOBER 1991

SUMMARY

Following September's increase—which had been the first in a year—October's total deliveries also rose. But, as in September, the month's 2.0 percent higher level was mostly the result of even weaker deliveries a year ago, rather than of any special strength this year. On a seasonally-adjusted basis, recent months' deliveries, while up from the low levels of this year's first quarter, have shown only modest growth, if at all—we estimate on the order of 1 percent, at best, at an annualized rate.

The story for individual products has been similar. Gasoline, though up slightly year to year, has shown little if any growth in recent months on a seasonally-adjusted basis. And consumption indicators for distillate fuel oil suggest that most of the 7.4 percent, year-to-year increase for October was the combined result of above-trend deliveries this October and depressed deliveries a year ago. Residual fuel oil deliveries, though up more than 14 percent from low year-ago levels, were still down nearly 10 percent from the same month two years ago—and roughly in line with the longer-term decline trend of the last several years for that product.

Meanwhile, October's imports, though up 9.4 percent over imports a year ago—which had been depressed by weak demand and greater reliance on the drawdown of domestic inventories following the cutoff of supplies from Iraq and Kuwait—dipped in comparison to more recent months' levels. One month's figures, however, sometimes obscure longer-term trends in imports. Excluding the first quarter, when imports had temporarily dipped to less than 7 million B/D, imports so far this year have averaged about 8 million B/D—about the same level as underlying requirements, net of temporary stock movements, prior to the Persian Gulf crisis.

Domestic crude oil production dropped 1.9 percent in October, with declines in both the lower 48 and Alaska from particularly strong levels a year ago. Recent production levels have also been down from those earlier in the year, suggesting that crude oil production's decline prior to the Persian Gulf crisis may have resumed in recent months. Indicators of upstream activity have largely been negative in recent months, with seismic exploration, drilling, and well servicing all down from prior levels.

Refinery activity slackened in October, with input to distillation units slipping to 13.1 million B/D from levels near 14 million B/D over the June-September period. Refinery input was still up half a percent from a year ago, however, and emphasis on distillate production resulted in a 4.4 percent year-to-year increase in output of that product. Distillate stocks ended the month at 136 million barrels, nearly equal to the year-ago level and higher than for the three Octobers prior to that.

PRODUCT SUPPLIED [1]

Gasoline

UP YEAR-TO-YEAR, BUT LITTLE SIGN OF CONSUMPTION GROWTH. October's gasoline deliveries, though not particularly strong, were still up a marginal 0.7 percent from even weaker levels a year ago. The rise was substantially less than September's somewhat surprising jump of nearly 5 percent. Aside from September's unusually large increase, the trend in gasoline deliveries over the past half year, when viewed on a month-to-month, seasonally-adjusted basis, has shown little if any consistent upward direction.

Data on miles traveled have been strengthening only marginally for the most recent months available. Highway travel in August was up 1.4 percent, year to year, only slightly more than in prior months. If trends earlier this year have continued more recently, October's increase in miles traveled, even compared against the weakening trend of a year ago, would still have been up only 2 to 3 percent, year to year—and mostly because of the dip in travel a year ago. Taking into account continued increases in fleet fuel efficiency, this would translate into roughly flat consumption versus a year earlier. The continued weakness in highway travel contrasts with growth rates of from 4 to 5 percent in 1988 and 1989 and 3 percent in the first half of last year.

Though some demand incentive for gasoline may have been provided by lower retail prices in October—down 2 to 3 cents, on average, from September and more than 20 percent, inflation-adjusted, from a year ago—the sluggishness of the economic recovery continues to dampen gasoline consumption. It is true that preliminary estimates of GNP showed growth of 2.4 percent

API ESTIMATES

	OCTOBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.3	2.0	16.6	(2.5)
Crude production[2]	7.4	(1.9)	7.4	0.5
Total imports[3]	7.3	9.4	7.6	(7.4)
Stocks (million bbl)[4]	1,068	(1.6)	na	na

for the third quarter, but this is on the basis of annualized, quarter-to-quarter changes.

Without the adjustment to annual rates, the third quarter GNP estimate was up only about half a percent from the second quarter—and still down from a year ago by about half a percent. The impact of short-term swings in economic growth tend to have less than a one-to-one effect on gasoline demand, but these figures nevertheless help to explain why underlying gasoline demand has continued to be weak.

Distillates

DELIVERIES JUMP, BUT CONSUMPTION LIKELY FLAT. Contrasting assumptions regarding non-primary inventory patterns this October versus last may help explain the month's 218 thousand B/D, 7.4 percent, increase in distillate deliveries. High and declining prices during October 1990 likely discouraged non-primary distillate inventory builds. This year, however, with lower prices and lower interest rates, the costs and risks to marketers and consumers of holding inventories were considerably lower. These factors may help explain why delivery growth was above estimated growth in underlying consumption, which is believed to have been about flat during October.

Storage capacity outside the primary distribution system is believed to be larger, as a share both of total storage capacity and of demand, for distillate fuels than for other light products. Based on estimates from the National Petroleum Council, nonprimary storage capacity represents about 20 percent of total storage capacity, and 2-3 weeks of average annualized jet kerosine demand; and for gasoline, it accounts for about 30 percent of total storage capacity, and some 4 weeks of average demand.

In the case of distillate fuel oil, however, the inventory capacity of marketers and consumers represents more than 50 percent of the total storage capacity, and more than 13 weeks of average annualized demand. It is easy to see how perturbations in nonprimary inventory patterns can influence year-to-year comparisons of distillate deliveries; a deliveries increase on the order of that seen in October could be fully explained by an increase in nonprimary inventory builds equivalent to only about 2.5 percent of nonprimary capacity.

Beneath October's growth in deliveries, demand indicators continue to be mixed—essentially flat on a year-to-year basis, although up perhaps 3 percent on a seasonally-adjusted basis, from early in the year. Rail demand appears to have been up 1-2 percent, year to year, but was offset by slight estimated declines in highway usage. Heating demand was likely up only modestly; while the number of heating degree days was up more than 10 percent in the Northeast from a year ago, that number was still more than 10 percent below the long-term average.

Residual Fuel Oil

UP 14 PERCENT FROM DEPRESSED YEAR-AGO LEVELS. Despite weak electricity demand, residual fuel deliveries surged more than 14 percent, year to year, in October—their largest such increase in over two years. However, as was the case last month, and could be the case at least through the remainder of the year, this growth results more from weak deliveries a year ago than from underlying strength in consumption during the month. October's deliveries were still down nearly 10 percent from the same month two years ago.

In the summer months (because of limits on some natural gas pipeline capacity, particularly in Florida) and in the winter months (because of the diversion of natural gas supplies to residential and commercial customers), utilities tend to satisfy more of their incremental demand with resid-fired units, making weather an important influence on underlying demand. In the fall and in the spring, however, with surplus deliverability of natural gas, and with electricity demand generally lower, there is more flexibility in other baseload generating units. Consequently, the link between weather and resid burn tends to be weaker. Moderate weather during October helped keep electricity generation essentially unchanged versus last year; coupled with weak industrial output (and thus weak industrial gas demand), there are thought to have been plentiful gas supplies for utilities, offsetting, in part, the impact of more competitive resid prices this year versus last.

Resid bunker markets no doubt benefited from October's 630 thousand B/D or so, year-to-year increase in water-borne imports. However, general economic weakness likely kept other merchandise imports and exports in check.

Kerosine Jet Fuel

TRAFFIC GRADUALLY STRENGTHENING. Despite climbing to their highest monthly level thus far in 1991, jet kerosine deliveries, at more than 1.38 million B/D, were down 1.6 percent from the same month a year ago, when growing commercial demand and surging military-related consumption (by both military and commercial aircraft) helped push deliveries near record levels. During October, commercial air travel paralleled movement in jet kerosine deliveries; miles flown, continuing to pick up on a seasonally-adjusted basis from levels during the first quarter, are estimated to more or less have matched year-ago levels during the month. Total military demand was no doubt lower than a year ago, but more favorable prices likely encouraged some nonprimary stock builds, and perhaps stimulated demand outside the aviation sector.

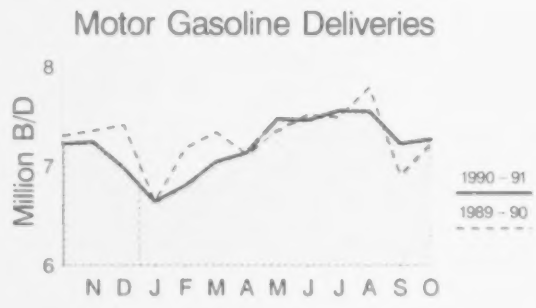
While October has traditionally been only an average month for air travel—ranking behind all summer months—it has been a relatively strong month so far as jet fuel deliveries are concerned—ranking ahead of all summer months. Stock building at the nonprimary level (in anticipation of the November-December holiday travel season) provides one explanation. But, since total nonprimary inventory capacity is thought to represent only 2-3 weeks of forward demand, it is doubtful stock builds by the aviation sector provide the full explanation.

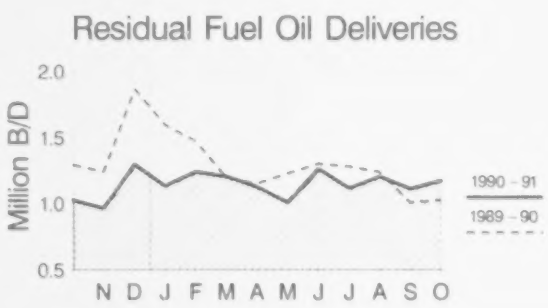
In addition to aviation use, jet fuel is used by marketers as a blendstock, particularly in the north, to lower the cloud point of diesel fuel, and is used by electric utilities to fire peak generation units. Thus, factors such as the weather and the price of jet fuel relative to number 2 fuel oil tend to play an increased role in jet kerosine markets during the fall and winter months. With jet fuel production typically high (paralleling increased production of heating fuel) and aviation demand typically in the average range, the spread between spot jet fuel prices and spot distillate prices is often low during the fall. Weather conditions were relatively moderate this October, tempering non-aviation demand; however, the spot price spread, fluctuating between 1-2 cents/gallon, was low compared to 3-4 cents/gallon seen during the summer, and was particularly low compared to the 20-25 cents/gallon spread seen last year amid Operation Desert Shield.

Often overlooked, because they are relatively small and relatively stable, are deliveries of naphtha jet fuel, used primarily by the U.S. military. Averaging 195-225 thousand B/D every year from 1973 and 1989, these deliveries fell to 182 thousand B/D last year, and have dipped further, averaging 175 thousand B/D over the first ten months of 1991. The 159 thousand B/D rate for October was particularly low. The drop is thought to reflect adjustments in military inventories as well as an overall scaling back by U.S. bases in use of jet fuels. The Air Force is planning to switch, at some point, from JP-4 (naphtha) to JP-8 (kerosine) aviation fuels. Thus far, however, only insignificant conversions have taken place. The timetable for conversion of most facilities has yet to be announced, and once announced, is not expected to begin for at least two years.

Other Oils

UP 1 PERCENT FOR THE MONTH. Reversing the declines of the prior two months, deliveries of "other oils" rose 1.0 percent for October. For the second and third quarters, deliveries had declined about 2 percent, year to year, but against the drop in deliveries in last year's fourth quarter, the current trend in year-to-year deliveries growth appears to be one of slight increases. The contrast with the year-to-year decreases of the past two quarters, as with other products, is mainly the result of shifts in year-ago deliveries.





SUPPLY[1]

Production

OUTPUT SLIPS FROM LEVELS EARLIER THIS YEAR. Despite reaching a 6-month high of close to 7.4 million B/D during October, U.S. crude production was down, year to year, by 146 thousand B/D, or 1.9 percent. Declines of 2.5 percent for Alaska and 1.7 percent for the lower 48 resulted in part from comparisons against particularly strong levels a year ago when (as a result of higher oil prices and the completion of summer Alaskan facility enhancements) domestic production witnessed its first year-to-year growth in four and a half years. Nonetheless, evidence over the past several months does suggest that production declines, both in Alaska and the lower 48, temporarily suspended following the Iraqi invasion, may have resumed in recent months.

Indicators of activity that would add to existing production remain lackluster. The number of rigs actively searching for oil and gas at the end of October was down more than 30 percent, year to year. While declines in natural gas drilling, resulting from low gas prices, help explain much of the overall rig drop, the number of rigs searching for oil has fallen sharply as well. At month's end, that number, at 432, was more than 70 rigs lower than at the end of June, and nearly 190 lower than the same time a year ago. Well servicing activity continues to decline as well, down 20 percent from its most recent peak last December. And the most recent figures on U.S. seismic crew activity were at the lowest level in at least 17 years.

Imports

TREND NEARS PRE-CRISIS LEVEL. Short-term fluctuations in imports sometimes make it difficult to discern the trend when one month's figures—such as October's—are taken in isolation. For example, October's total imports jumped 9.4 percent over the year-ago level, which had been depressed to one of the lowest levels in three years by weak demand and increased reliance on the drawdown of domestic stocks following the cutoff of supplies

from Iraq and Kuwait. But, when compared with more recent levels averaging over 8 million B/D, October's imports of 7.3 million B/D were down measurably.

Thus, a slightly longer perspective is sometimes more informative than a single month's figure. Prior to the Persian Gulf crisis, total imports had averaged about 8 million B/D in 1989, and would have continued at somewhere near that level in the first half of 1990 had there not been a substantial stock build which temporarily pushed imports up to 8.5 million B/D. During the crisis, imports dropped to an average of less than 7 million B/D, in part because of substantial draws on domestic stocks. Since then, imports began to recover to prior levels. Excluding this year's first quarter, imports have been averaging about 8 million B/D—roughly the same level as underlying import requirements immediately prior to the crisis.

Meanwhile, product imports, which had averaged 2.2-2.3 million B/D during the year-and-a-half prior to the Iraq/Kuwait crisis, dipped to 1.5 million B/D by this year's first quarter (the result of weaker domestic demand and shifts in foreign supply/demand related to the Persian Gulf developments), and for the past seven months have recovered to an average of about 1.9 million B/D.

For October, product imports of 1.7 million B/D were up 14 percent from a year ago, but down from the nearly 2 million B/D levels of August and September. The month's imports of residual fuel oil were up by more than a third, year to year, to about 520 thousand B/D. Imports of finished gasoline and kerosine jet fuel, at about 190 and 50 thousand B/D, respectively, were similar to year-ago levels, while distillate imports rose about 20 thousand B/D to close to 210 thousand B/D.

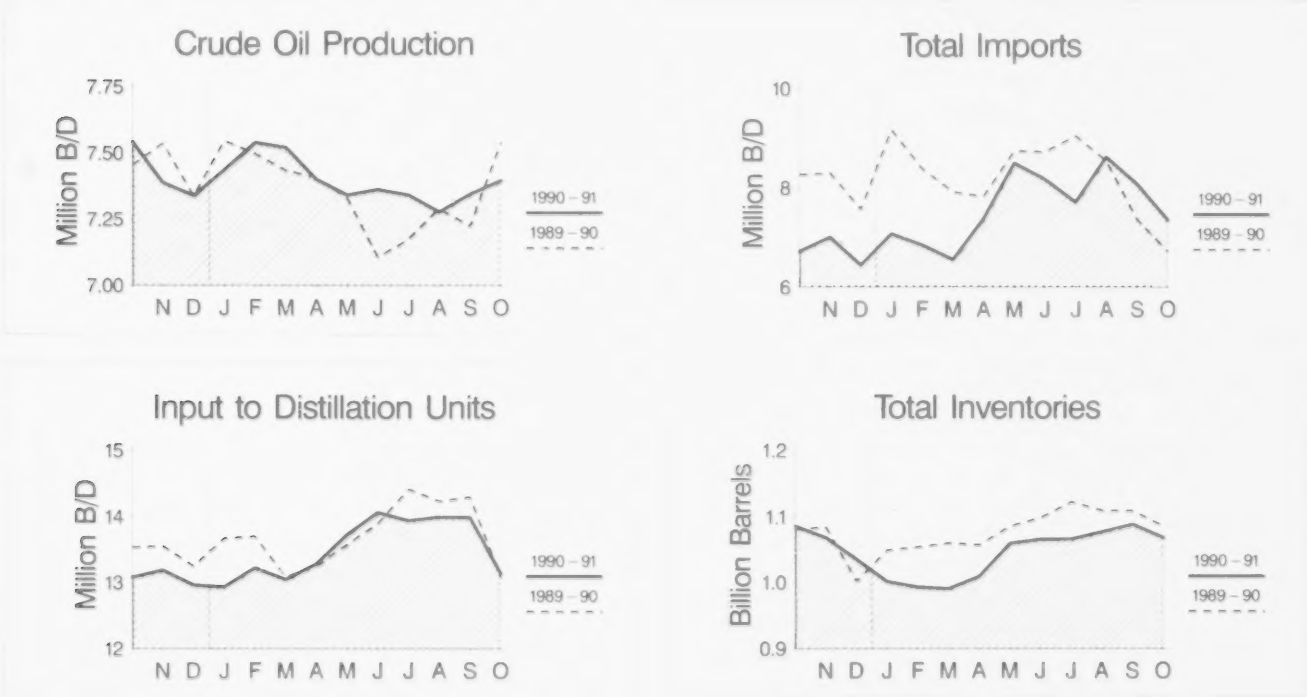
Refinery Operations

DISTILLATE OUTPUT JUMPS 4.4 PERCENT.

Refinery activity slowed in October from earlier months. Input to distillation units, after running near 14 million B/D since June, slackened to 13.1 million B/D, though it was still up half a percent from a year ago.

The emphasis on distillate production continued in October, with output of that product up 4.4 percent over a year ago to 3.06 million B/D—the highest for October in more than ten years. meanwhile, production of kerosine jet fuel was down over 1 percent from the all-time monthly high of nearly 1.5 million B/D reached last October, when military demand was bolstering deliveries. October's gasoline output was roughly even with a year ago.

Utilization of capacity in operation averaged 86-87 percent in October—down from about 92 percent for September but about equal to the year-ago level. On the basis of reported capacity, utilization was calculated at 83.6 percent for the month.



1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of October 31, 1991).

Inventories

DISTILLATE STOCKS HIGHER THAN IN MOST RECENT OCTOBERS. Total stocks declined 20 million barrels in October, compared with an average decline for the month in recent prior years of 8 million barrels. Crude inventories, however, rose 4 million barrels to 343 million barrels, nearly equal to the year ago level.

Gasoline stocks typically fall during October as the seasonal decline in refinery output between its summer and winter peaks exceeds the seasonal dropoff in gasoline deliveries. This October, gasoline stocks declined 11 million barrels to 204 million barrels, a level low in comparison to typical levels of the last several years.

Distillate stocks, which also often dip slightly in October for similar reasons, slipped 2 million barrels during the month. At 136 million barrels, they were roughly equal to year-ago levels and higher than the levels of the three Octobers prior to that.

According to Department of Energy data, U.S. propane stocks near the end of October, at 52 million barrels, were down about 3 million barrels from a year ago. However, the year-to-year decline was primarily the result of a 6 million barrel drop in the Gulf Coast region (PAD III), where propane is principally a petrochemical feedstock. In the main residential and commercial markets, stocks where equal to or higher than year-ago levels—on the East Coast, stocks matched year-ago levels, and in the Midwest, they were 4 million barrels higher.

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	OCTOBER			YEAR-TO-DATE		
	1991/1	1990/2	% Change	1991/3R	1990/2	% Change
Products Supplied:						
Total motor gasoline	7,273	7,226	0.7	7,223	7,260	(0.5)
Finished leaded motor gasoline/*	282	343	(17.8)	276	406	(32.0)
Finished unleaded motor gasoline/*	6,991	6,883	1.6	6,947	6,854	1.4
Naphtha-jet	159	179	(11.2)	175	181	(3.3)
Kerosine-jet	1,384	1,406	(1.6)	1,293	1,334	(3.1)
Distillate fuel oil	3,178	2,960	7.4	2,921	3,034	(3.7)
Residual fuel oil	1,174	1,026	14.4	1,158	1,248	(7.2)
All other oils/4	4,354	4,310	1.0	4,124	4,138	(0.3)
Reclassified/5	-243	-172	41.3	-261	-127	105.5
Total domestic products supplied	17,279	16,935	2.0	16,633	17,068	(2.5)
Exports	900	949	(5.2)	1,000	800	25.0
Total products supplied	18,179	17,884	1.6	17,633	17,868	(1.3)
Supply:						
Domestic production:						
Crude oil/6	7,396	7,542	(1.9)	7,394	7,354	0.5
Natural gas liquids	1,698	1,667	1.9	1,656	1,541	7.5
Other supply/7	1,085	1,198	(9.4)	1,058	1,001	5.7
Total domestic supply	10,179	10,407	(2.2)	10,108	9,896	2.1
Imports:						
Crude oil, total/8	5,539	5,132	7.9	5,842	6,073	(3.8)
Canadian	559	636	(12.1)	716	635	12.8
Other	4,980	4,496	10.8	5,126	5,438	(5.7)
Products, total	1,810	1,585	14.2	1,791	2,174	(17.6)
Residual fuel oil	519	383	35.5	449	517	(13.2)
Other	1,291	1,202	7.4	1,342	1,657	(19.0)
Total imports	7,349	6,717	9.4	7,633	8,247	(7.4)
Total supply	17,528	17,124	2.4	17,741	18,143	(2.2)
Stock change, all oils	-651	-760	******	108	275	******
Refinery Operations						
Input to crude oil distillation units	13,135	13,076	0.5	13,584	13,718	(1.0)
Operable capacity	15,708	15,666	0.3	15,752	15,616	0.9
Refinery utilization (%)/9	83.6	83.5	0.1	86.2	87.8	(1.8)
Crude oil runs	13,003	12,825	1.4	13,341	13,526	(1.4)

Stocks (millions bbls.)	1991		1990/2	% Change from	
	Oct. 31/10	Sep. 31/10	Oct. 31	Previous month	Year Ago
Crude oil/8	342.9	338.8	346.3	1.2	(1.0)
Unfinished oils	108.7	109.6	103.5	(0.8)	5.0
Total motor gasoline/**	204.3	215.3	220.0	(5.1)	(7.1)
Finished leaded motor gasoline/*	5.8	6.9	10.5	(15.9)	(44.8)
Finished unleaded motor gasoline/*	161.4	170.3	169.7	(5.2)	(4.9)
Naphtha-jet	5.1	5.0	6.2	2.0	(17.7)
Kerosine-jet	43.6	45.8	44.9	(4.8)	(2.9)
Distillate fuel oil	135.6	137.4	136.3	(1.3)	(0.5)
Residual fuel oil	46.6	47.8	49.3	(2.5)	(5.5)
All other oils	180.8	188.1R	178.6	(3.9)	1.2
Total all oils	1,067.6	1,087.8R	1,085.1	(1.9)	(1.6)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-August, DOE, September-October, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Prepared by the Finance, Accounting, and Statistics Department

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NOVEMBER 1991

SUMMARY

Total deliveries, even against the weak levels of a year earlier, failed to exceed the year-ago figure this November. Following year-to-year increases of 1 to 2 percent in the prior two months—admittedly more because of depressed levels last year than of any real strength in this year's deliveries—this November's deliveries looked unusually feeble.

Gasoline deliveries dropped more than 3 percent versus a year ago, even though other indicators suggest that consumption would have been roughly flat. Distillate deliveries fell by slightly more, despite weather colder than a year ago in major heating oil consuming regions and indications of increased transportation use. Meanwhile, deliveries of kerosine jet fuel, though less out of line with recent trends, were still only flat. Residual fuel oil deliveries, rising by a seemingly large 26 percent against depressed deliveries a year ago, in fact still fell short of November deliveries the year before that. Although the hesitant economic recovery has played a role in the weakness so far this year in deliveries, November's were still below recent trends—trends which would have suggested a year-to-year increase for the month similar to the 1 to 2 percent of the prior two months.

For the third time in four months, November's domestic crude oil production fell, year to year. With the month's 1.6 percent drop, the net result of a 2.4 percent decrease for the lower 48 and a 1 percent increase for Alaska, evidence continues to accumulate that domestic production's decline trend may be resuming after a temporary interruption during the past year or so.

Total petroleum imports rose versus last November, but the 7.6 percent increase was mainly a reflection of depressed imports a year ago in the midst of the Persian Gulf crisis. Product imports surpassed 2 million B/D for the first time since May. This was principally because of higher imports of residual fuel oil, which nearly doubled from 330 thousand B/D in March to over 600 thousand B/D in November.

Distillate's weak deliveries, combined with strong refinery output, led to a 5 million barrel increase in distillate stocks during the month. At 140 million barrels, distillate inventories ended November at the highest level for that month in five years. Gasoline stocks rose 4 million barrels, but crude and product inventories as a whole were nearly unchanged compared with October's month-end level.

PRODUCT SUPPLIED[1]

Gasoline

DOWN OVER 3 PERCENT FROM ALREADY-LOW YEAR-AGO LEVELS.

Following two months of year-to-year increases, gasoline deliveries fell precipitously in November. The September and October increases had been in part the result of depressed year-ago levels, so November's decline of 3.2 percent against similarly low levels of a year ago was evidence of a substantial dropoff from the pattern of previous months' deliveries.

While there have been suspicions that some of the prior-month's figures were high compared to actual consumption, November's deliveries were below what might have been expected based on other consumption indicators. However, averaging the fluctuating levels of gasoline deliveries of the past three months yields roughly flat performance versus a year ago.

This is roughly in line with what would be suggested by recent data on travel. Year-to-year increases in miles traveled, though strengthening in recent months, still only mustered a 1.8 percent increase for September, the latest data available. If the trend continued into November, more or less flat consumption versus a year ago is implied.

Distillates

DELIVERIES OFF FOR MONTH DESPITE COLDER WEATHER.

Despite apparent increases in underlying heating and transportation demand, deliveries of distillate fuel oil during November fell 3.5 percent, year to year. Seasonally-adjusted, deliveries during the month were down about 3 percent from their average over September and October. It is believed that November's contrast between growth in deliveries and growth in estimated consumption of 3-4 percent results from smaller builds (or larger draws on) non-primary inventories versus last year, perhaps indicating marketer and consumer expectations of falling prices.

Weather during November was colder than last year throughout most of the country. In New England and the Mid-Atlantic

	API ESTIMATES NOVEMBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	–	16.6	(2.3)
Crude production[2]	7.3	(1.6)	7.4	0.3
Total imports[3]	7.5	7.6	7.6	(6.7)
Stocks (million bbl)[4]	1,069	0.1	na	na

states, which together account for about two-thirds of nationwide heating fuel demand, the number of heating degree days rose by nearly 10 percent, year to year. Nationwide, weather is estimated to have accounted for perhaps 80-90 thousand B/D of additional heating fuel consumption versus last year.

In transportation markets, while underlying railroad demand appears to have been roughly flat for the month, highway demand is estimated to have been up slightly. Seasonally-adjusted, highway tonnage has generally been increasing since June. In the most recent months, reported trucking tonnage was up by about two percent, year to year, adding perhaps 20-30 thousand B/D to consumption.

Differences in non-primary inventory patterns this year versus last offer one explanation for the divergence between consumption and delivery growth. Weather in the Northeast, though colder than a year ago, remained moderately warmer than the long-run November average. Coupled with moderate weather in Europe and falling crude prices, this no doubt influenced expectations of future distillate prices, and perhaps encouraged some wholesalers and large consumers of diesel and heating fuels to put off purchases.

Residual Fuel Oil

26 PERCENT RISE IS LESS THAN IT APPEARS.

Residual fuel deliveries were up more than 25 percent, year to year, in November—the sharpest such increase in over five years. While underlying demand no doubt benefitted from colder weather versus last November and the resulting increase in electricity generation, the year-to-year growth resulted more from depressed deliveries a year ago than from particularly strong deliveries this year. Despite the year-to-year surge, residual fuel supplied has remained roughly flat, on a seasonally-adjusted basis, over the past four months—and versus levels for the same period two years ago, it was actually down slightly.

Last November, mild weather and higher prices encouraged fuel switching and bulk-power purchases from other suppliers by utilities ordinarily relying on residual fuel. As a result, consumption of resid by utilities fell to the lowest level for any month in over 20 years. This November, more competitive prices and more seasonal weather are thought to have prompted increased resid-fired generation. At month's end, spot resid prices were about 40 percent lower than last year, while gas prices were down by a lesser 20 percent.

Lower temperatures throughout the nation are believed to have facilitated the year-to-year increase in resid demand both by limiting the availability of natural gas to electric utilities, and by reducing surplus electric power available for bulk transfers. The colder weather helped push power generation in the Northeast up 2-3 percent, year-to-year. Perhaps equally noteworthy during the month was weather in Florida, where heating degree days more than tripled from levels last November. Florida utilities, which accounted for nearly a fifth of nationwide utility resid consumption last winter, are dependent on resid for meeting surge winter generation needs. Amid the record cold weather of December 1989, for instance, Florida utilities satisfied over 70 percent of incremental generation needs (versus November) via resid-fired generation. This compares with slightly less than 60 percent in the Northeast and only 10 percent in the rest of the nation.

Kerosine Jet Fuel

TRAVEL PICKING UP IN RECENT MONTHS.

Paralleling the pattern seen in air travel, jet kerosine deliveries continued to pick up in November, on a seasonally-adjusted basis, from lows this past spring. For the month, deliveries were essentially unchanged, year to year, after having declined 5 percent in the year's first half and 2 percent over the previous three months.

While many of the major U.S. air carriers had been reporting year-to-year increases in passenger travel since early in the summer, much of this growth came either at the expense of smaller carriers, as a result of route transfers, or as a result of passenger migration from the now-defunct Eastern airlines. Collectively, the industry reported year-to-year declines in miles flown during each of the year's first ten months. Nonetheless, on a seasonally-adjusted basis, traffic continued to pick up between May and October, and early indications for November suggest that miles flown (and consequently underlying jet fuel demand) perhaps matched year-ago levels.

With Midway Airlines ceasing operations in November and Pan-Am following suit in early December, an evaluation of how airline exits tend to affect industry operations may be in order. When an air carrier leaves a market, if its would-be passengers are able to fly other airlines, the shutdown need not have any effect on passenger travel. To the extent, however, that other carriers are able to absorb some portion of the influx by filling otherwise empty seats (i.e. increasing load factors), miles flown (and consequently, underlying jet fuel demand) tends to be negatively impacted.

Eastern's shutdown this past January was coincident with the start of the Persian Gulf War, making it difficult to provide concrete evidence of this "load factor" effect. Initially, a significant drop in overall travel demand caused by the war more than compensated for this effect. However, since the first quarter, load factors have typically been 1-2 points above year ago levels, offering some evidence that other airlines may have been able to satisfy would-be Eastern passengers by filling more empty seats. What inferences may be drawn for Midway and Pan-Am remain to be seen, but together they accounted for about five percent of the U.S. market—about the same share Eastern occupied at the time that airline ceased flight operations.

Other Oils

DELIVERIES RISE MODERATELY.

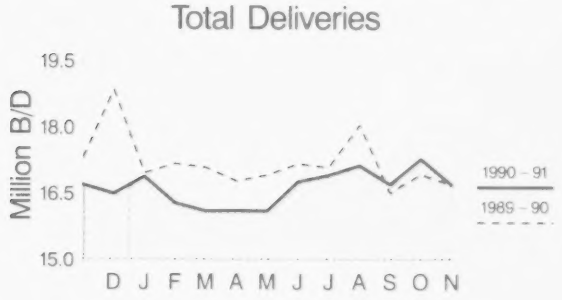
Deliveries of "other oils" rose a moderate 1.1 percent for November, roughly in line with the estimated underlying trend in year-to-year consumption changes. LPG demand—which accounts for roughly 40 percent of the "other oils" category—was bolstered by colder-than-normal weather, particularly in the Midwest, a major residential/commercial market for propane. However, in petrochemical feedstock markets, demand for LPGs is believed to have been relatively weak because of unattractive prices in relation to heavier feedstocks.

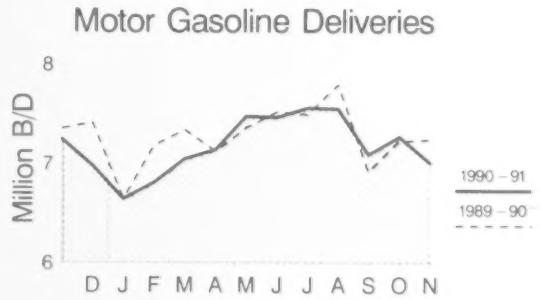
The recent weakness in LPG chemical usage contrasts with last year, when chemical use of LPGs rebounded from its dropoff in 1989. According to the most recent edition of *Sales of Natural Gas Liquids and Liquefied Refinery Gases*, recently released by API in coordination with the National Propane Gas Association

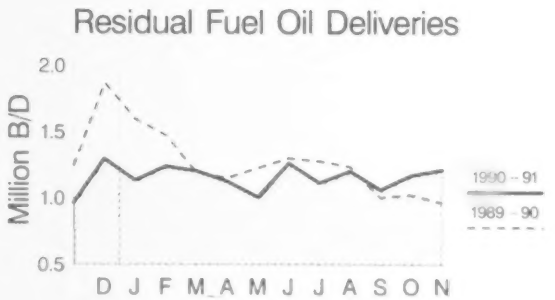
and the Gas Processors Association, nearly half of LPGs (principally ethane and propane) go to chemical uses—and most of that in Gulf Coast states.

Gasoline blending, the second largest end-use category for LPGs, dropped for the third straight year in a reflection of the effects of stricter Federal and state vapor pressure requirements on the blending of butanes and heavier components. Not surprisingly, major refining states Texas and Louisiana alone accounted for more than half of all blending use.

Meanwhile, residential/commercial usage (essentially propane) has risen by a quarter since 1984, with more than 70 percent of usage occurring in the Midwest and on the East Coast.







SUPPLY [1/]

Production

ANOTHER DECLINE FOR CRUDE OUTPUT. Led by a 2.4 percent year-to-year decline in the lower 48, U.S. crude production fell 1.6 percent, or 121 thousand B/D during November. With lower 48 production down for the third time in four months, evidence continues to build that the ongoing production decline, temporarily abating in the 12 months following the Iraqi invasion, has resumed. And while Alaskan output was up 1 percent, year to year, during the month, such growth represents a continued moderation from the 4.2 percent seen in the year's first half.

The upstream story continues to be little changed from recent months. Seismic activity, drilling permits, well drilling and well servicing all continue to be down at double digit rates, year to year. The most recent figures on seismic crew count are of particular interest, having fallen to the lowest level in over 50 years. While the number of rigs searching for oil rebounded modestly during November from lows in September, that number at month's end was still down 22 percent, year to year. With gas prices remaining depressed, and with crude prices dropping 3-4 dollars/barrel during the month, financial incentives for increases in either drilling or production have been limited.

Imports

PRODUCT IMPORTS REACH 2 MILLION B/D. November's total petroleum imports rose, year to year, for the fourth month in a row. The 7.6 percent increase, however, was against year-ago levels of 7 million B/D, which had been the lowest level for that month since 1987. November's imports, at 7.5 million B/D, were still less than the roughly 8 million B/D underlying trend in import requirements prior to the Persian Gulf crisis.

Product imports exceeded 2 million B/D for the first month since May, rising nearly 9 percent versus 7 percent for crude. Recovery of residual fuel oil imports from low levels a year ago to pre-crisis levels was the primary reason for the increase. Though demand has been relatively stable in recent months, residual fuel oil imports have continued to trend upwards as supply patterns for resid have shifted away from domestic refinery production. Since March's low point of 330 thousand B/D imports of resid have nearly doubled to over 600 thousand B/D for November. Imports of distillate and kerosine jet fuel have also been stronger in recent months compared with mid-summer lows.

Meanwhile, product exports, after jumping during the Persian Gulf crisis in response to crisis-related supply/demand shifts and other factors, have trended downwards more recently. The latest available Department of Energy data, for September, show an

average of 676 million B/D, compared with peak levels of over 1 million B/D over the December-February period.

Distillate exports, which had reached 300-400 thousand B/D during that period in response to stronger overseas demand and unusually warm weather domestically, declined to an average 150 thousand B/D in the second quarter. They slipped further, to 136 thousand B/D, in September. Kerosine jet fuel exports, which had at times reached 140-150 thousand B/D during the crisis, were down to 10 to 30 thousand B/D for more recent months.

Refinery Operations

RUNS SLIP BUT DISTILLATE RISES. Though input to distillation units slipped 0.9 percent from a year ago in November, output of all major products except kerosine jet fuel rose. The 8.2 percent drop for kerosine jet fuel was mainly a measure of the record levels reached during last year's fourth quarter in response to Desert Shield-related demand; this November's output, at 1.33 million B/D, was still the highest since February.

With continued emphasis on distillate production over gasoline, distillate output rose 5.4 percent versus 0.7 percent for gasoline. Distillate output reached 3.07 million B/D, the highest for November since 1985.

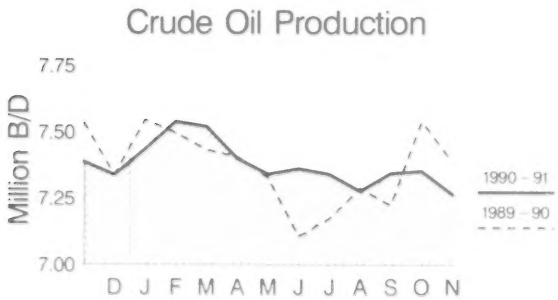
Utilization of operating capacity averaged about 86 percent for the month, down from 88 percent a year ago. On the basis of reported capacity, utilization for the month is calculated at 83.2 percent.

Inventories

GASOLINE, DISTILLATE STOCKS RISE. With both crude stocks and total inventories nearly unchanged during the month, the principal developments during November were in inventories of some of the major products. Weak deliveries, coupled with ready supplies from refineries, helped to raise distillate stocks by 5 million barrels to 140 million barrels—8 million barrels higher than a year ago and the highest November level in five years.

Gasoline inventories also rose, but by a slightly lesser 4 million barrels. Gasoline stocks ended the month at 208 million barrels, 8 million barrels lower than a year ago. Crude stocks held steady at 343 million barrels, while total inventories edged downwards by less than a million barrels to nearly match year-ago levels.

As for propane, inventories dropped slightly during November, according to Department of Energy figures. In the main heating-use regions, stocks continued to be near or above year-ago levels—East Coast stocks, at about 5 million barrels, were about the same as a year ago, while in the Midwest they were up a million barrels from last November to 21 million barrels. On the Gulf Coast, where propane's primary use as a petrochemical feedstock continued to languish because of more attractive prices for other feedstocks, the gap versus a year ago narrowed to 2 million barrels as stocks rose during the month to 26 million barrels.



1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of November 30, 1991).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	NOVEMBER			YEAR-TO-DATE		
	1991/1	1990/2	% Change	1991/3R	1990/2	% Change
Products Supplied:						
Total motor gasoline	7,010	7,241	(3.2)	7,191	7,259	(0.9)
Finished leaded motor gasoline/*	192	301	(36.2)	268	396	(32.3)
Finished unleaded motor gasoline/*	6,818	6,940	(1.8)	6,923	6,863	0.9
Naphtha-jet	168	208	(19.2)	175	184	(4.9)
Kerosine-jet	1,367	1,369	(0.1)	1,301	1,337	(2.7)
Distillate fuel oil	2,987	3,094	(3.5)	2,922	3,039	(3.8)
Residual fuel oil	1,215	965	25.9	1,159	1,222	(5.2)
All other oils/4	4,199	4,153	1.1	4,142	4,138	0.1
Reclassified/5	-253	-335	(24.5)	-254	-145	75.2
Total domestic products supplied	16,693	16,695	0.0	16,636	17,034	(2.3)
Exports	812	1,085	(25.2)	969	826	17.3
Total products supplied	17,505	17,780	(1.5)	17,605	17,860	(1.4)
Supply:						
Domestic production:						
Crude oil/6	7,266	7,387	(1.6)	7,378	7,357	0.3
Natural gas liquids	1,643	1,690	(2.8)	1,644	1,555	5.7
Other supply/7	1,032	1,126	(8.3)	1,092	1,012	7.9
Total domestic supply	9,941	10,203	(2.6)	10,114	9,924	1.9
Imports:						
Crude oil, total/8	5,449	5,085	7.2	5,781	5,984	(3.4)
Canadian	774	645	20.0	740	636	16.4
Other	4,675	4,440	5.3	5,041	5,348	(5.7)
Products, total	2,088	1,918	8.9	1,813	2,151	(15.7)
Residual fuel oil	604	387	56.1	460	506	(9.1)
Other	1,484	1,531	(3.1)	1,353	1,645	(17.8)
Total imports	7,537	7,003	7.6	7,594	8,135	(6.7)
Total supply	17,478	17,206	1.6	17,708	18,059	(1.9)
Stock change, all oils	-27	-574	******	103	199	******
Refinery Operations						
Input to crude oil distillation units	13,073	13,187	(0.9)	13,528	13,670	(1.0)
Operable capacity	15,708	15,666	0.3	15,752	15,621	0.8
Refinery utilization (%)/9	83.2	84.2	(1.2)	85.9	87.5	(1.8)
Crude oil runs	12,883	12,953	(0.5)	13,289	13,474	(1.4)

Stocks (millions bbls.)	1991		1990/2	% Change from	
	Nov. 30/10	Oct. 31/10	Nov. 30	Previous month	Year Ago
Crude oil/8	343.0	342.9	338.7	0.0	1.3
Unfinished oils	107.9	108.7	108.7	(0.7)	(0.7)
Total motor gasoline/**	208.0	204.3	217.2	1.8	(4.2)
Finished leaded motor gasoline/*	5.5	5.8	9.8	(5.2)	(43.9)
Finished unleaded motor gasoline/*	166.7	161.4	167.1	3.3	(0.2)
Naphtha-jet	4.7	5.1	5.8	(7.8)	(19.0)
Kerosine-jet	44.2	43.6	44.7	1.4	(1.1)
Distillate fuel oil	140.4	135.6	132.4	3.5	6.0
Residual fuel oil	49.2	46.6	50.1	5.6	(1.8)
All other oils	171.9	183.3R	170.2	(6.2)	1.0
Total all oils	1,069.3	1,070.1R	1,067.8	(0.1)	0.1

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 Jan-Sep, DOE; Oct-Nov, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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SUMMARY

The substantial, and largely unanticipated, fall in December crude oil production unfortunately confirms that, after stabilizing during the latter part of 1990 and the first half of 1991, U.S. crude oil output has begun a precipitous decline. Indeed, the 2.0 percent drop versus the year-earlier period for fourth quarter crude production brought it to the lowest fourth-quarter level in 30 years. The decline was conspicuous both in the lower 48 and in Alaska, where output declined 1.8 percent and 2.7 percent, respectively, for the fourth quarter. Production in the lower 48, at 5.6 million B/D for the year, was down more than 20 percent from 1985 and at its lowest level in 40 years.

Meanwhile, the U.S. recession has continued to affect domestic petroleum consumption, with deliveries falling 2.0 percent, the second annual drop in a row. Net of normal seasonal variations, deliveries had strengthened in the second and third quarters compared with the first quarter's extremely weak level (though against the same periods a year earlier, deliveries had still shown declines).

For the fourth quarter, however, the recovery in demand stalled, and, even after allowing for the effects of warmer-than-typical weather on heating-related uses, deliveries were actually weaker than earlier in the year. Compared with the period prior to the eruption of the Iraq-Kuwait crisis in August 1990, they were running roughly half a million B/D lower on a seasonally-adjusted basis. Deliveries managed a 1.3 percent, year-to-year increase for the fourth quarter only because levels for the year-ago period, in the midst of substantially higher prices precipitated by the Persian Gulf crisis, were even weaker.

In 1991, the longer-term trend of increased efficiency in the consumption of petroleum continued. Since U.S. petroleum use peaked in 1978 at 18.9 million B/D, annual consumption has fallen nearly 12 percent despite an economy that, even with the 1991 recession year, has grown by a net 31 percent. The consequence has been that oil's share of total energy consumption has continued to decline—reaching, in 1991, a level of just over 40 percent, the lowest share in four decades.

With unusually weak domestic petroleum demand, imports actually declined in 1991—by 5.1 percent to 7.6 million B/D. However, with the deterioration in domestic crude oil output towards year-end, the underlying trend in recent months has been one of rising import needs. For the year, total imports accounted for 45.5 percent of domestic deliveries, down only slightly from 47.0 percent the year before.

Most of the decline in imports for the year was the result of a 15 percent drop for products, partially offsetting the effects of the demand decline on the domestic refining industry. Input to distillation units slipped a little less than 1 percent for the year, about half the decline in domestic deliveries.

Refinery activity in December, however, was unusually strong—with input up 4.3 percent from a year ago—but served mainly to build stocks of major products rather than to accommodate any revival in demand. Gasoline stocks rose 12 million barrels to 220 million barrels, matching those of a year ago, while distillate stocks inched up to 143 million barrels, significantly higher than the usual 125-135 million barrel end-of-year range.

PRODUCT SUPPLIED [1]

Energy

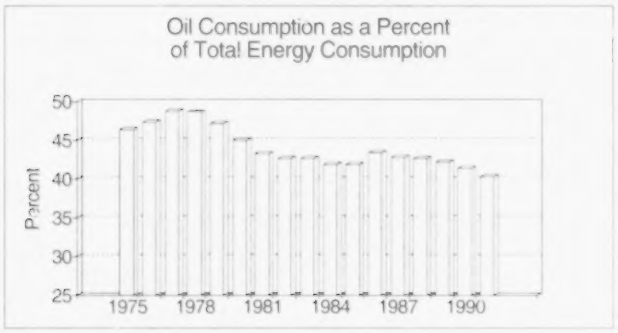
OIL'S SHARE DROPS TO LOWEST LEVEL IN 40 YEARS.

Oil's share of energy consumption, we estimate, fell to its lowest level in forty years in 1991. After peaking at 48.7 percent in 1977, its share has declined in all but one year since then—the result of improvements in vehicle fuel efficiency, conservation, switching to coal and nuclear power in the electric utility industry, and additional fuel substitution in other sectors. In 1991, we estimate that petroleum's share fell below 41 percent for the first year since 1951.

Meanwhile, overall energy consumption we estimate to have about matched that of the prior year. Moreover, energy consumed per dollar of real Gross Domestic Product (GDP)—one measure of energy efficiency—has remained in roughly the same range for the past six years. Though still representing a substantial decline of more than 25 percent from levels of the early 1970s, at an estimated 16.8 thousand BTU per 1987 dollar of GDP, 1991's energy/GDP figure roughly equalled the 1986-1990 average. Using similar calculations, oil consumption per unit of economic output has fallen by more than 7 percent since 1986.

API ESTIMATES

	DECEMBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.2	4.0	16.6	(2.0)
Crude production[p]	7.2	(2.1)	7.4	0.1
Total imports[p]	7.4	15.2	7.6	(5.1)
Stocks (million bbl)[p]	1,043	0.8	na	na



Consumption of most other major fuel categories, except coal, are estimated to have risen in 1991. For natural gas, a longer-term trend towards greater industrial consumption more than counterbalanced the effects of the sluggish economy—unlike the experience for coal consumption. Nuclear generation rose as existing units were utilized more fully, and hydro generation continued to recover from its weather-related dropoff three years ago. Data presented here do not include the smaller, but non-negligible category of fuels such as most wood, waste, wind, geothermal, and solar, which are for the most part not commercially bought or sold and are not measured with the timeliness or accuracy of the major energy sources.

ESTIMATED ENERGY CONSUMPTION BY FUEL GROUP
(Quadrillion BTU)

	Consumption			Market Share		
Fuel	1990	1991	Change	1990	1991	Change (points)
Coal	19.1	18.9	-1.0%	23.5%	23.1%	-0.4
Natural Gas	19.3	19.9	+3.1%	23.7%	24.4%	+0.7
Petroleum	33.6	32.9	-2.0%	41.3%	40.3%	-1.0
Other	9.3	9.9	+6.6%	11.5%	12.2%	+0.7
Total	81.3	81.6	+0.4%	100.0%	100.0%	—

Sources: 1991: API estimates; 1990: U.S. Department of Energy

Gasoline

WEAK ECONOMY SLOWS TRAVEL IN 1991. Gasoline deliveries slipped 0.7 percent in 1991, the third year in a row for which deliveries have either been flat or declined. Though the decrease for the year as a whole was half that of 1990, deliveries in the fourth quarter fell 0.3 percent short of deliveries in the year-ago period that had already dropped nearly 3 percent as a result of the weak economy and crisis-related higher prices.

In short, the stagnant economy, combined with continuing improvement in the average efficiency of cars on the road, have kept gasoline deliveries on a lackluster course over the last year or two. With the economy growing only 1 percent in 1990 and probably shrinking by close to 1 percent in 1991, there is little surprise that travel has been correspondingly sluggish. Travel is estimated to have been up less than a percent for the year, weaker than 1990's 2 percent increase and far lower than the 4-5 percent trend of the several years before that. With the fourth quarter's deliveries actually down about a percent from earlier in the year, on a seasonally-adjusted basis, the trend for gasoline consumption at year-end was apparently still one of continued modest declines.

In part a continuing reflection of economic conditions, premium unleaded's share of the gasoline market declined for the second year in a row in 1991. Down about two points to a share near 18.5 percent, premium had previously enjoyed a share of close to 24 percent before the grade-switching effects of higher prices and the economic slowdown were felt in the latter part of 1990. Regular unleaded's share rose from 65.3 percent in 1990 to an estimate of a little over 68 percent in 1991, while midgrade held steady at about 10 percent. At year-end, leaded regular was only about 3 percent of gasoline sales.

Distillates

DECLINES FOR MOST USE SECTORS. Falling 3.2 percent during 1991—a slightly larger drop than indicators of consumption would suggest—distillate deliveries, at 2.924 million B/D, reached their lowest level in 5 years. Colder weather than in 1990 contributed to an increase in heating fuel demand, but declines in other sectors were more than compensating. Deliveries were generally recovering during the year's second and third quarters and actually increased about 3 percent, year to year, during the fourth quarter. However, with particularly weak deliveries a year ago, the fourth quarter's strengthening was likely more apparent than real.

Weather in New England and the Mid-Atlantic states, while still on the moderate side, was nonetheless colder in 1991 than 1990 both early and late in the year; the number of heating degree days in these states was up about 10 percent. Nationwide, lower temperatures added perhaps 20-30 thousand B/D to heating-related demand for the entire year, and more than twice that amount during November and December.

However, distillate deliveries for the year were dominated by the effects of the sluggish U.S. economy on transportation and industrial consumption. Based on trends in truck and rail tonnage for the year, we estimate diesel demand in each of these sectors to have fallen by about 3 percent. Such drops would translate into declines of perhaps 40-50 thousand in highway usage, and 8-10 thousand B/D in rail usage. And based on falling industrial output and indicators of industrial energy use, we estimate that underlying demand for distillate in this sector fell, as well, by about 5 percent, or 5-10 thousand B/D. While deliveries for the year fell by roughly 50 thousand B/D more than what is suggested by these consumption declines, such a deviation is not unreasonable given inherent variability in the data, and given potential swings caused by differences in non-primary inventory patterns.

Concentrating on the more recent period, demand indicators suggest that both heating and transportation demand have been up of late. In addition to the aforementioned impact of weather during November and December, both rail and highway consumption appear to have been up slightly as well. During December, for example, rail traffic was reportedly up about 3 percent from a year ago, and we estimate trucking tonnage to have been up about 1 percent, year to year.

Residual Fuel Oil

ANOTHER ANNUAL LOW FOR DELIVERIES. Colder weather and more competitive prices helped push resid deliveries up, year to year, for the fourth consecutive month during December. However, the month's 7.5 percent increase did not prevent the annual figure from falling for the twelfth time in 14 years. The year's 5 percent decline (believed to have been shared by the utility, industrial and shipping sectors), brought deliveries to their lowest level since 1942.

With fourth-quarter weather colder than last year in the resid-intensive East, power generation in these states picked up by about 2 percent from the corresponding period of 1990. And with heavy fuel oil prices at year's end about as competitive as they have been vis-a-vis gas in three years, utilities are believed to have met more than half of the increase in power demand in these states via resid-fired generation. Still, growth of late in resid deliveries and in resid-burn by utilities is thought to be more a reflection of extremely low consumption a year ago than a reversal of the ongoing declines. While up about 3 percent from 1990 during the second half, deliveries for that period were still off about 10 percent from the corresponding period of 1989 (and were down even excluding the effects of weather)

Residual fuel faces competition in utility markets not only from gas, but from other sources of power as well. Coal, nuclear and hydro may not be substitutes for resid in the same way that natural gas is, but (through load management and through bulk power transfers), they are substitutes, nonetheless. "Resid-vs-gas" competition tends to dominate short-run variations in resid consumption, but competition with other fuel sources has been more important in explaining longer term variations. As was the case in 1990, both gas and petroleum generation fell in the U.S. during 1991, supplanted in part by increased nuclear generation. While no significant nuclear capacity was added during the year, increased capacity utilization pushed nuclear generation up by more than 5 percent in the Mid-Atlantic states, and is believed to have affected resid demand in the East.

Resid's weakness during the year extended beyond the utility sector into the shipping and industrial sectors. Weak trade and the implementation of a 8.25 percent sales tax on bunker fuels in California are believed to have contributed to a decline in resid bunker fuel demand, (which accounts for about a third of total resid demand). However, year-to-year increases in oceanborne petroleum imports since August are believed to have mitigated this effect somewhat. Meanwhile, with overall industrial output down about 2 percent for the year, industrial resid demand (about 12 percent of the total on an annual basis) is estimated to have been down about 4-5 percent.

Kerosine Jet Fuel

FIRST DROPOFF SINCE 1982. Although up marginally, year to year, during December, jet kerosine deliveries fell for the year as a whole for the first time since 1982. 1991's decline of 2.8 percent paralleled a comparable drop in miles flown by commercial airlines, as both the Persian Gulf War and the weak U.S. economy had negative impacts on passenger air travel. Deliveries generally began to recover along with airline travel starting late in the second quarter. However, the recovery has been weak in recent months, and indicators of underlying consumption, at year's end, continued to be down slightly from the same period in 1990.

After war-related declines of 4-5 percent, year to year, during the year's first five months, miles flown on commercial aircraft generally recovered throughout the rest of 1991, falling 1.5 percent during the third quarter, and about 1 percent during the fourth. Similarly, jet fuel deliveries recovered since May, although that recovery has weakened of late. On a seasonally-adjusted basis, deliveries have been essentially flat in recent months.

Structural change in the airline industry during 1991 also contributed to jet fuel market fluctuations. Three significant air carriers, collectively accounting for nearly 10 percent of the U.S. industry's miles flown, ceased operation during the year (Eastern in January; Midway in November; and Pan Am in December). While other carriers may enter or expand capacity in markets formerly served by an exiting airline, it is believed the net impact is that fewer seats are offered. Other airlines are able, in many cases, to fill otherwise-vacant seats, thus reducing jet fuel consumption. The exit of Eastern early in the year (after the countervailing impact of the War on load factors had subsided) contributed to an increase in the industry load factor of 1-2 percent, year to year, through the rest of the year. While it is too early to quantitatively estimate any load factor impacts from the Pan Am and Midway exits, directionally, the effects are expected to have been the same.

Other Oils

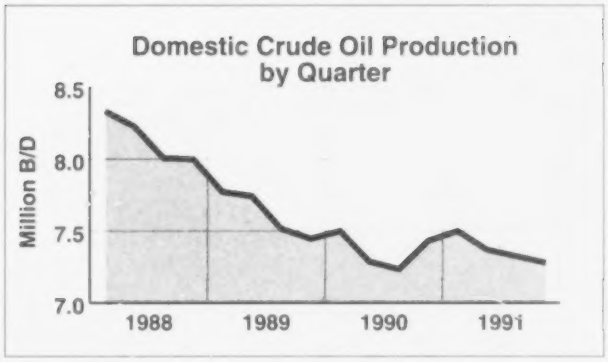
BUCKING THE TREND, YEAR'S DELIVERIES RISE MARGINALLY. Deliveries of "other oils", for the second year, managed to avoid declines of the size for domestic deliveries as a whole. In fact, in contrast to the decreases for each of the major products, deliveries of the remaining "other oils" category actually rose a slight 0.4 percent for 1991.

Contributing to the increase were higher deliveries of petrochemical feedstocks, both LPGs and heavier streams. Cooler weather versus the prior year we estimate also contributed a small boost to propane deliveries versus a year ago. However, weakening deliveries of lubricants and asphalt apparently partially counterbalanced these gains, along with a decline in the production and consumption of byproduct refinery gases which resulted from the decline in refinery activity.

SUPPLY [1/]

Production

DECLINE RESUMING FOR CRUDE OIL. As 1991 progressed, evidence continued to build that the stabilization in domestic crude production that occurred in late 1990 and early 1991 was temporary. Total production for the year as a whole was little changed from 1990, with a 37 thousand B/D (2.1 percent) increase in Alaska offset, for the most part, by a 29 thousand B/D (0.5 percent) decline in the lower 48. However, during the fourth quarter, Alaskan production slid 2.7 percent from the year-ago period, while lower 48 production was off 1.8 percent. The fourth quarter's decline brought lower 48 production for the year to its lowest level since 1950. By our estimates, total U.S. production is now falling at a rate of roughly 300 thousand B/D. About one third of this is occurring in Alaska.



The year's pattern in drilling activity was similar to the pattern in production—up early, but down dramatically at year's end. API estimates show that well completions were off 28 percent during the fourth quarter, both for oil and for gas. Meanwhile, with the number of rigs actively looking for oil and gas (a leading indicator of well completions) averaging fewer than 800 during the year's last five months, that figure for the year was its lowest in nearly 50 years, and is continuing to fall.

Volatile oil prices, depressed natural gas prices, limited access to public lands, and impediments in U.S. tax laws all are believed to have contributed to declines in U.S. drilling activity during 1991. These factors helped to depress returns on domestic drilling and, along with incentives offered to U.S. companies by producers abroad (where the resource bases are often less developed), facilitated a further migration of upstream capital investment abroad.

The returns on domestic upstream investment had already been low in recent years, both when compared to the average for U.S. manufacturing, and to the average for upstream investment overseas. A recent study by First Boston found that, of six major oil companies, only one had an average return on U.S. upstream investment greater than 6.2 percent during the 1986-1990 period. The average return for these companies, at about 4 percent, was significantly lower than the cost of capital. By comparison, operating earnings per dollar of net property, plant and equipment were greater abroad than in the U.S.—with one exception, two to six times greater in 1990.

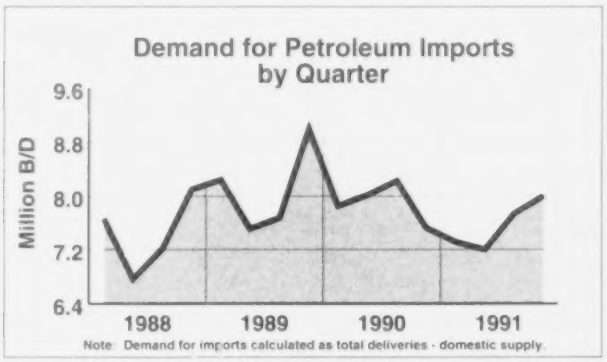
Drilling has also been significantly hindered by a lack of access to those areas where oil and gas are most likely to be found. Increasingly, acreage both onshore and offshore has been put off-limits to oil and gas drilling. Areas now closed to drilling, including offshore California and Florida, and in Alaska, are believed to hold significant potential for oil and natural gas discoveries. The Department of Interior (DOI) has estimated that these areas could account for nearly 7 billion barrels of oil equivalent (BOE) of undiscovered economically recoverable resources in their mean projection case, (and conceivably more than twice this amount). Similarly, over the course of the last five years, Forest Service acreage under lease has fallen by 65 percent. These bans not only affect future leasing, but also many leases already issued. Approximately 490 existing OCS leases have been put under either formal or de facto drilling bans.

Imports

IMPORT INDICATORS HEADING UPWARDS IN RECENT MONTHS.

Total imports, after rising by more than 60 percent between 1985 and 1989 and leveling off in 1990, declined 5.1 percent in 1991—the result of weak domestic demand and the temporary stabilization in domestic production. Towards year-end, however, stagnant consumption was the only factor moderating the rise in underlying import requirements. In fact, with the resumption of the decline in domestic crude oil production, the underlying trend in recent months has been one of rising import needs.

As the accompanying graph shows, the decline apparent in the latter part of 1990 and early 1991 in the "demand for imports"—that is, the gap between total demand and domestic supply—reversed in the latter half of 1991. This is often a more reliable indicator of underlying trends in import requirements than the raw imports data, since domestic inventory changes, not just imports, can also—at least temporarily—fill the gap between deliveries and supply, distorting import patterns in the short term. On this basis, import requirements in the second half of 1991 averaged more than half a million barrels per day higher than in the first half of the year, and were continuing to rise in the fourth quarter.



For the year, products absorbed roughly four-fifths of imports' decline, dropping 15 percent. Imports of finished motor gasoline slipped 50 thousand B/D to 290 thousand B/D, distillate imports fell 75 thousand B/D to a little over 200 thousand B/D, and kerosine jet fuel imports declined nearly 45 thousand B/D to less than 60 thousand B/D. Although residual fuel oil imports dropped 45 thousand B/D to 460 thousand B/D for the year, at year-end they had recovered to levels above half a million B/D.

While product imports were lagging, opportunities for light product exports expanded for some refiners—though relative to the size of the U.S. market, amounts were small. Light product exports (gasoline, distillate, and jet fuel), with stronger demand abroad than at home, increased to a little more than 300 thousand B/D in 1991 versus 1990's 200 thousand B/D and 1989's 160 thousand B/D. Distillate exports, in particular, rose 90-100 thousand B/D in 1991, roughly the size of the domestic deliveries decline. In recent months, distillate exports have been running at 150-250 thousand B/D, versus pre-crisis levels of around 100 thousand B/D. Gasoline exports for the year are estimated to have risen 20 thousand B/D or so from 1990's 55 thousand B/D level.

Though total imports slipped to 7.6 million B/D for the year from 8.0 million B/D the prior year, as a proportion of domestic deliveries they still amounted to 45.5 percent, down only slightly from the prior year's 47.0 percent.

Refinery Operations

RUNS FALL LESS THAN DEMAND FOR THE YEAR. Refinery activity slipped in 1991 for the first year since 1985, but the effects of the dropoff in demand on refiners were partially offset by a reduction in product imports. Input to distillation units decreased about 1 percent, about half the percentage drop for domestic demand. Output of major products, at least relative to demand, was relatively strong. Gasoline and distillate output actually rose slightly (0.1 percent and 1.1 percent, respectively); kerosine jet fuel production, though declining against 1990's strong levels by 2.4 percent, still bettered output two years ago by nearly 7 percent. Lower-valued residual fuel oil output, however, dropped 1.8 percent versus 1990.

Utilization of capacity in operation averaged around 89 percent in 1991, less than 1990's 90.9 percent but roughly in the middle of the 87 to 91 percent range of the latter half of the 1980s. Utilization as calculated using reported capacity figures, which for 1991 included an average of roughly half a million B/D of capacity either not in regular operation or out of service for extended periods, averaged 85.9 percent.

For December, notwithstanding the ongoing weakness in deliveries, input reached more than 13.5 million B/D, up 4.3 percent versus a year ago and the highest for that month in three years. With the emphasis on distillate production over gasoline over the past several months finally abating, gasoline production surged to 7.28 million B/D, up 5.7 percent year to year. Distillate output was also up 6.6 percent—but, in contrast with the case for gasoline, mainly because year-ago levels were quite low due to emphasis on jet fuel production at that time.

Nevertheless, December's activity largely served to make up for weaker activity in recent prior months. At year-end, with lackluster domestic demand and little apparent additional shift in product import/export markets, the trend in refinery activity was at best flat to down versus earlier in the year.

Inventories

CRUDE STOCKS FALL, GASOLINE'S RISE IN DECEMBER. During December, total stocks fell a less-than-typical 28 million barrels, slightly exceeding year-ago levels at 1,043 million barrels. Following a nearly 60 million barrel replenishment during February through May following the substantial drawdown of domestic commercial stocks during the Persian Gulf crisis, changes in total inventories during the remainder of the year strayed less often from the usual seasonal pattern.

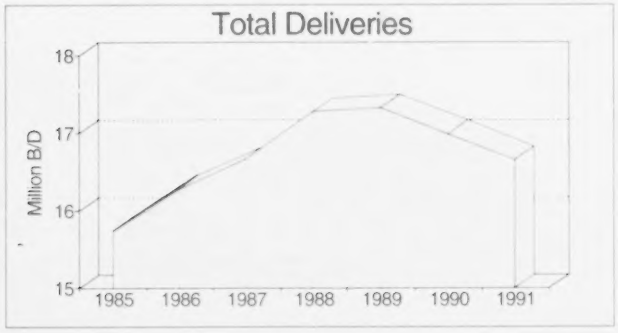
With December's increased refinery activity, crude stocks fell sharply while stocks of most major products grew. In particular, gasoline stocks rose 12 million barrels for the month while distillate stocks rose 3 million barrels. Gasoline inventories, at 220 million barrels, matched year-ago levels, but distillate stocks' end-of-December level continued to exceed levels for similar months of prior years. At month-end, they stood at 143 million barrels compared with the 125-135 million barrel range common in recent Decembers.

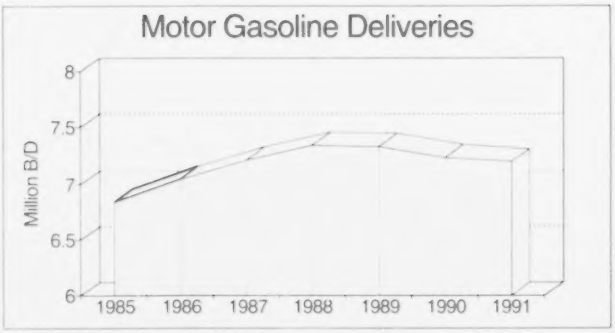
Crude inventories regularly fall in December as refinery activity picks up for the heating season, and the past month's 15 million barrel drop was not much more than typical. Crude stocks ended the year at 328 million barrels, somewhat below their most frequently-observed range of recent years of 330-350 million barrels but above the recent-year low of 320 million barrels observed this past January.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

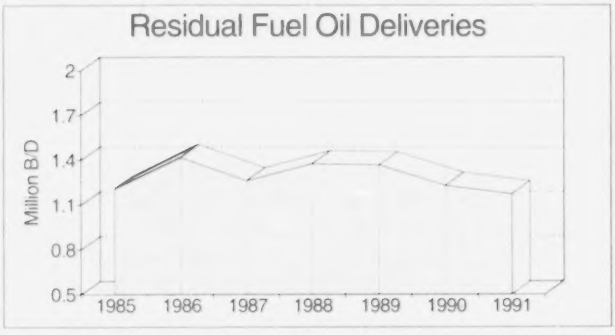
2/ Includes lease condensate.

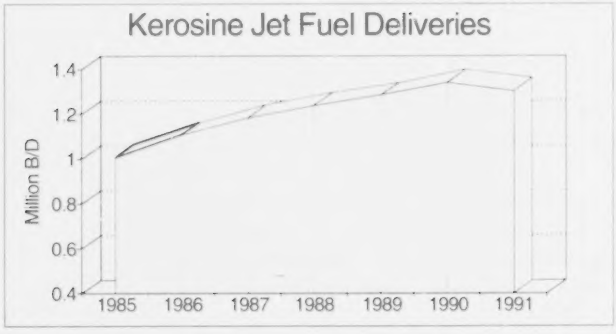
3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of December 31, 1991).

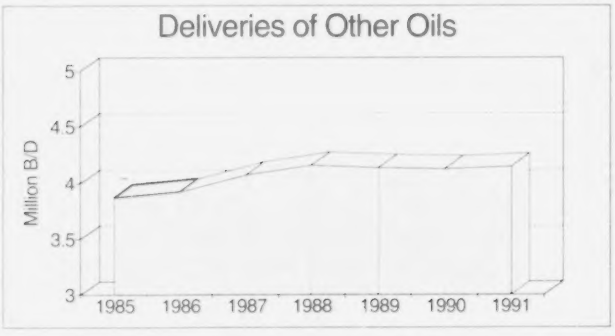

Total Deliveries
Million B/D
18
17
16
15
1985
1986
1987
1988
1989
1990
1991

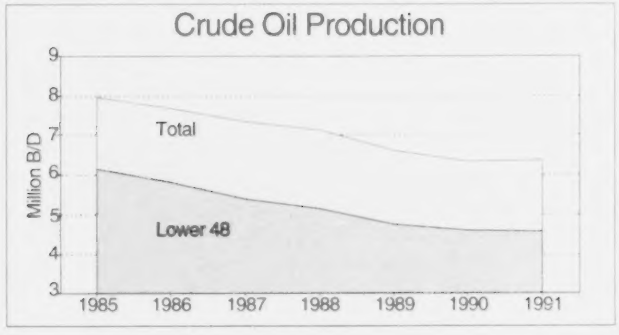

Motor Gasoline Deliveries
Million B/D
8
7.5
7
6.5
6
1985
1986
1987
1988
1989
1990
1991

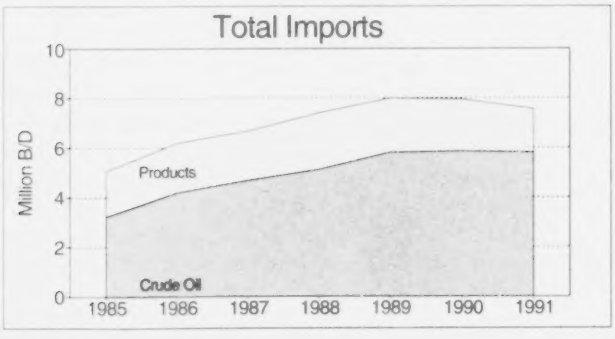
Distillate Deliveries
Million B/D
3.4
3.2
3
2.8
2.6
1985
1986
1987
1988
1989
1990
1991

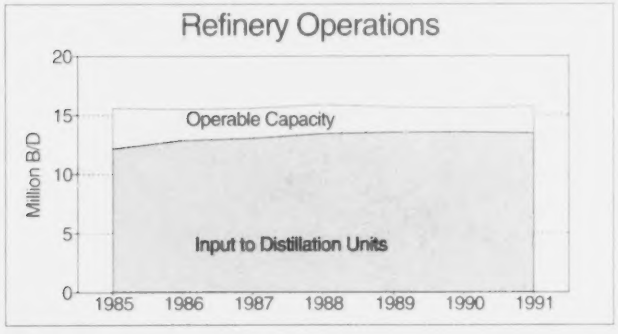

Residual Fuel Oil Deliveries
Million B/D
2
1.7
1.4
1.1
0.8
0.5
1985
1986
1987
1988
1989
1990
1991


Kerosine Jet Fuel Deliveries
Million B/D
1.4
1.2
1
0.8
0.6
0.4
1985
1986
1987
1988
1989
1990
1991


Deliveries of Other Oils
Million B/D
5
4.5
4
3.5
3
1985
1986
1987
1988
1989
1990
1991


Crude Oil Production
Million B/D
9
8
7
6
5
4
3
Total
Lower 48
1985
1986
1987
1988
1989
1990
1991


Total Imports
Million B/D
10
8
6
4
2
0
Products
Crude Oil
1985
1986
1987
1988
1989
1990
1991


Refinery Operations
Million B/D
20
15
10
5
0
Operable Capacity
Input to Distillation Units
1985
1986
1987
1988
1989
1990
1991

Total Inventories
Billion Barrels
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Products
Crude
1985
1986
1987
1988
1989
1990
1991

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	DECEMBER			YEAR-TO-DATE		
	1991/1	1990/2	% Change	1991/3R	1990/2	% Change
Products Supplied:						
Total motor gasoline	7,089	6,978	1.6	7,182	7,235	(0.7)
Finished leaded motor gasoline/*	172	265	(35.1)	256	385	(33.5)
Finished unleaded motor gasoline/*	6,917	6,713	3.0	6,926	6,850	1.1
Naphtha-jet	172	163	5.5	176	182	(3.3)
Kerosine-jet	1,383	1,378	0.4	1,302	1,340	(2.8)
Distillate fuel oil	3,101	2,816	10.1	2,924	3,021	(3.2)
Residual fuel oil	1,393	1,296	7.5	1,167	1,229	(5.0)
All other oils/4	4,233	4,010	5.6	4,142	4,127	0.4
Reclassified/5	-209	-146	43.2	-245	-145	69.0
Total domestic products supplied	17,162	16,495	4.0	16,648	16,989	(2.0)
Exports	852	1,187	(28.2)	961	857	12.1
Total products supplied	18,014	17,682	1.9	17,609	17,846	(1.3)
Supply:						
Domestic production:						
Crude oil/6	7,185	7,338	(2.1)	7,363	7,355	0.1
Natural gas liquids	1,610	1,604	0.4	1,639	1,559	5.1
Other supply/7	904	1,240	(27.1)	1,045	1,032	1.3
Total domestic supply	9,699	10,182	(4.7)	10,047	9,946	1.0
Imports:						
Crude oil, total/8	5,642	4,611	22.4	5,781	5,867	(1.5)
Canadian	741	713	3.9	747	643	16.2
Other	4,901	3,898	25.7	5,034	5,224	(3.6)
Products, total	1,777	1,828	(2.8)	1,802	2,123	(15.1)
Residual fuel oil	541	484	11.8	460	504	(8.7)
Other	1,236	1,344	(8.0)	1,342	1,619	(17.1)
Total imports	7,419	6,439	15.2	7,583	7,990	(5.1)
Total supply	17,118	16,621	3.0	17,630	17,936	(1.7)
Stock change, all oils	-896	-1,061	******	21	90	******
Refinery Operations						
Input to crude oil distillation units	13,516	12,961	4.3	13,487	13,610	(0.9)
Operable capacity	15,708	15,656	0.3	15,709	15,624	0.5
Refinery utilization (%)/9	86.0	82.8	3.9	85.9	87.1	(1.4)
Crude oil runs	13,305	12,708	4.7	13,281	13,409	(1.0)

Stock (million bbls.)	1991		1990/2	% change from...	
	Dec. 31/10	Nov. 30/10	Dec. 31	Previous month	Year Ago
Crude oil/8	327.8	342.8R	322.7	(4.4)	1.6
Unfinished oils	99.4	107.9	98.7	(7.9)	0.7
Total motor gasoline/**	220.1	208.0	219.6	5.8	0.2
Finished leaded motor gasoline/*	5.4	5.5	9.9	(1.8)	(45.5)
Finished unleaded motor gasoline/*	177.1	166.7	170.7	6.2	3.7
Naphtha-jet	4.7	4.7	6.2	0.0	(24.2)
Kerosine-jet	45.0	44.2	45.9	1.8	(2.0)
Distillate fuel oil	143.2	140.4	132.2	2.0	8.3
Residual fuel oil	48.9	49.2	48.6	(0.6)	0.6
All other oils	153.7	173.4R	161.0	(11.4)	(4.5)
Total all oils	1,042.8	1,070.6R	1,034.9	(2.6)	0.8

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 Jan-Oct, DOE, Nov-Dec, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	4TH QUARTER 1991/1	1990/2	%Change
Products Supplied:			
Total motor gasoline	7,125	7,148	(0.3)
Finished leaded motor gasoline/*	203	303	(33.0)
Finished unleaded motor gasoline/*	6,922	6,845	1.1
Naphtha-jet	170	183	(7.1)
Kerosine-jet	1,354	1,384	(2.2)
Distillate fuel oil	3,040	2,955	2.9
Residual fuel oil	1,212	1,097	10.5
All other oils/3	4,233	4,158	1.8
Reclassified/4	-215	-217	(0.9)
Total domestic products supplied	16,919	16,708	1.3
Exports	861	1,074	(19.8)
Total products supplied	17,780	17,782	0.0
Supply:			
Domestic production:			
Crude oil/5	7,273	7,422	(2.0)
Natural gas liquids	1,642	1,653	(0.7)
Other supply/6	899	1,189	(24.4)
Total domestic supply	9,814	10,264	(4.4)
Imports:			
Crude oil, total/7	5,593	4,941	13.2
Canadian	718	665	8.0
Other	4,875	4,276	14.0
Products, total	1,857	1,776	4.6
Residual fuel oil	527	419	25.8
Other	1,330	1,357	(2.0)
Total imports	7,450	6,717	10.9
Total supply	17,264	16,981	1.7
Stock change, all oils	-516	-801	*****
Refinery Operations			
Input to crude oil distillation units	13,236	13,073	1.2
Operable capacity	15,721	15,663	0.4
Refinery utilization (%)/8	84.2	83.5	0.8
Crude oil runs	13,029	12,828	1.6

Stocks (millions bbls.)	4TH QUARTER 1991/9	1990/2	% Change
Crude oil/7	327.8	322.7	1.6
Unfinished oils	99.4	98.7	0.7
Total motor gasoline/**	220.1	219.6	0.2
Finished leaded motor gasoline/*	5.4	9.9	(45.5)
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All other oils	153.7	161.0	(4.5)
Total all oils	1,042.8	1,034.9	0.8

/1 Source: U.S. Department of Energy, October: November-December, API.
/2 Source: U.S. Department of Energy.
/3 Includes crude losses.
/4 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
/5 API estimate; includes lease condensate.
/6 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/7 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/8 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/9 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Washington, D.C. 20005

Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 16, No. 1

FEBRUARY 19, 1992

JANUARY 1992

SUMMARY

Total deliveries rose 1.9 percent in January, their second year-to-year increase in a row. This was not much of an achievement, however, since the growth was against figures of the first quarter of 1991—the weakest period for petroleum deliveries of the past five years, once normal seasonal variation is taken into account. Thus, January data provide little evidence of any recovery in deliveries since mid-1991.

Deliveries of individual products were up year to year as well in January, but again the underlying story behind the figures was mixed at best. Gasoline deliveries rose 2.7 percent from a year ago, though recent month-to-month growth in travel has been modest enough to suggest no more than a flat trend in gasoline consumption. Distillate deliveries inched up a marginal 0.3 percent, with an apparent modest strengthening in transportation usage. Again largely reflecting year-ago factors, kerosine jet fuel deliveries increased 3.3 percent. And residual fuel oil deliveries, up 6 percent from exceptionally weak levels a year ago, were otherwise still quite low compared to recent historical levels.

For domestic crude oil production, January's year-to-year dropoff of 2.1 percent or about 155 thousand B/D we believe understates the more recent rate of decline. We estimate that since mid-1991, when production's downturn began to become evident, the trend in domestic crude oil production has been falling at a rate of about 300 thousand B/D per year.

Meanwhile, for the sixth month in a row, January's total imports rose, year to year. The 4.3 percent, 305 thousand B/D increase came despite a nearly 12 percent, 210 thousand B/D drop in product imports versus a year ago and reflected a significantly smaller inventory drawdown. Imports of major products have dipped in the last two months as foreign prices have become less attractive vis-a-vis domestic sources.

Refinery activity, though up from a year ago, slackened more than usual from December's level in January, and the shift in emphasis from distillate to gasoline production was reflected in month-end inventories. For gasoline, builds over the past two months have increased stocks to 230 million barrels. Distillate stocks, however, dropped a greater-than-average 16 million barrels, and were approaching a more typical neighborhood after several months of being well above their historical level.

Crude stocks bounced back by 7 million barrels from December's lower-than-typical levels to 334 million barrels, also more in line with their usual range. Total stocks fell a substantial 27 million barrels, more than average for the month but within the volatile range of stock swings for January.

PRODUCT SUPPLIED [1]

Gasoline

NO GROWTH FOR GASOLINE. Gasoline deliveries rose 2.7 percent versus last January. However, the increase was less an indication of strengthening in recent months than of the weak deliveries in last year's first quarter.

The most recent data on travel suggest that the month-to-month trend in gasoline consumption continues to be flat at best. The growth trend in travel, on a month-to-month basis, we estimate has recently been around 1 to 2 percent at an annual rate—not enough, even with an apparent decline in the rate of improvement in fleet fuel efficiency, to provide any boost to consumption. That rate, at least as implied by comparing deliveries with travel data, has apparently slowed to 1 to 2 percent from an average of roughly 3 percent per year in recent prior years. The decline in efficiency improvement is likely related to the onset of the economic recession and dropoff in new car sales.

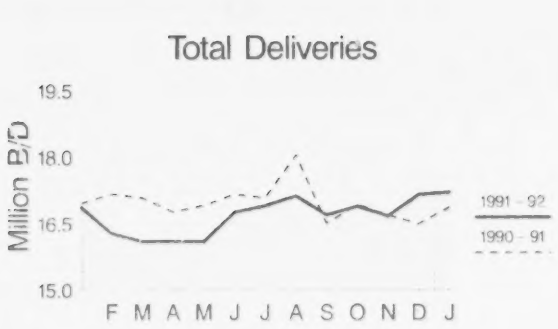
Gasoline prices continued to fall in January, down to an average for the month of about $1.08 per gallon for unleaded regular—the lowest inflation-adjusted price since late 1989, even without adjusting for the 5 cent Federal tax increase of December 1990 and various state tax increases. Year to year, they were down about 17 cents from crisis-related levels of last January—but even since June, they have fallen by a net 8 cents.

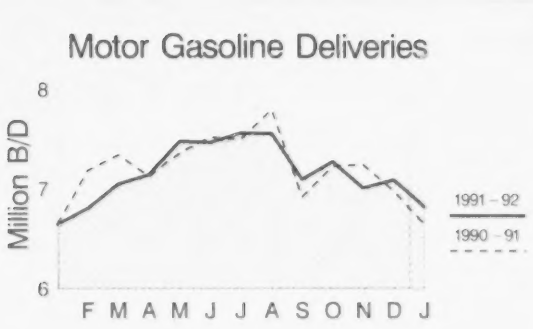
Distillates

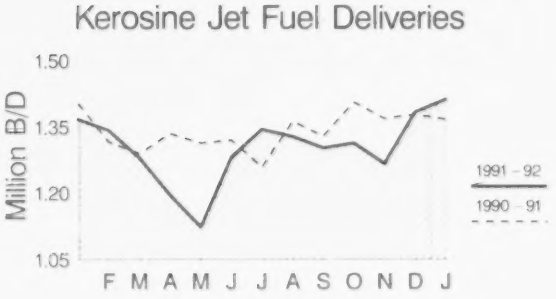
TRANSPORTATION USE INCHING UP. Despite mild weather, deliveries of distillate fuel oil rose 0.3 percent during January—a reflection, in part, of increases in transportation demand. At 3,365 million B/D, distillate deliveries reached their highest level since December 1989. Nonetheless, for the month, we estimate that

API ESTIMATES
JANUARY

	Million B/D	Percent Change
Total domestic deliveries	17.2	1.9
Crude production[2]	7.2	(2.1)
Total imports[2]	7.4	4.3
Stocks (million bbl)[3]	1,020	1.9







distillate consumption was down 30-40 thousand B/D from last January (although up by a comparable amount when normalized for weather).

Winter temperatures throughout much of the country were more moderate this January than last, deterring heating fuel consumption, particularly in the East and the Midwest. Nationwide, the nearly 10 percent year-to-year decline in heating degree days is estimated to have contributed to a drop in heating-related consumption of perhaps 70-80 thousand B/D. In transportation markets, however, indications are that both highway and rail traffic increased during the month, with highway truck tonnage up about 3 percent and rail ton-miles up about 5 percent. Such increases could account for year-to-year consumption increases in these sectors of perhaps 30 thousand B/D and 10 thousand B/D, respectively.

The 35-45 thousand B/D difference between changes in estimated consumption and changes in deliveries is believed to reflect contrasts in non-primary inventory patterns, perhaps in response to differing price patterns this year versus last. Spot distillate prices were generally increasing throughout January, finishing the month up 6-7 cents/gallon from the end of December. This would contrast with the pattern a year ago, when prices were both higher (thus making inventory carrying costs higher) and downward trending (thus discouraging near-term deliveries).

Kerosine Jet Fuel

MODEST RECOVERY CONTINUING. Deliveries of jet kerosine rose 3.3 percent, year to year, in January. Excepting December 1989's weather-related surge, deliveries for the month, at 1,412 thousand B/D, were at an all-time high. While growth in deliveries was slightly greater than the estimated growth in miles flown on commercial airlines, it is believed that price parity between jet fuel and distillate fuels during much of the month encouraged some incremental blending for heating and ground transportation needs.

After twelve consecutive months in which air travel declined on a year-to-year basis, we estimate that growth returned in January. However, much of the growth in January resulted from factors a year ago, when the start of the Persian Gulf War brought about a dramatic dropoff in air passenger travel and a diversion of military jet fuel demand overseas, and when Eastern Airlines ceased flight operations. Still, on a seasonally-adjusted basis, miles flown have been increasing moderately over the past several months, and early indications for January are that this trend has continued. Given this and the depressed level of travel a year ago, we estimate that miles flown grew, year to year, during the month by 1-2 percent, and were comparable to the levels of two years ago.

During the winter months, when commercial air travel is at or near its lows for the year, a considerable portion of jet fuel deliveries is diverted from aviation markets for use as blendstock with heating oil and diesel fuel. This blending ensures the firing properties of these distillates when temperatures drop, and is thus particularly important in the northern states. We estimate that about 10-15 percent, or 140-200 thousand B/D of jet fuel deliveries typically satisfy January weather-related blending needs.

However, when weather conditions become more severe or when price relationships merit, the amount of blending is believed to increase. In contrast to the 2-3 cents/gallon premium observed in the recent past versus distillate fuel, jet fuel prices moved into a parity position with distillate throughout much of the month, perhaps encouraging some incremental blending.

Residual Fuel Oil

TREND STILL WELL BELOW EARLIER LEVELS. Deliveries of residual fuel oil were up 6.0 percent, year to year, during January. However, this year-to-year comparison is deceptive in that deliveries last January, in the midst of crisis-inflated resid prices, were the lowest for any January in over 45 years. Perhaps more relevant is the fact that seasonally-adjusted deliveries, thanks to mild weather and low natural gas prices, have by our estimates fallen by about 15 percent over the past four months. Adding to this weakness of late was this month's opening of a major natural gas pipeline system from Canada into the traditionally resid-intensive Northeast.

The inherent variability in resid deliveries (due among other things, to changes in weather, prices, gas deliverability, and potentially large non-primary inventory shifts), makes deciphering a trend in underlying consumption complex. Still, beneath this month-to-month variability, it appears that consumption continues to trend down. By our estimates, over the last 2 years (net of the perturbations caused by the Persian Gulf Crisis), this downward trend has been in the 6-8 percent per year range.

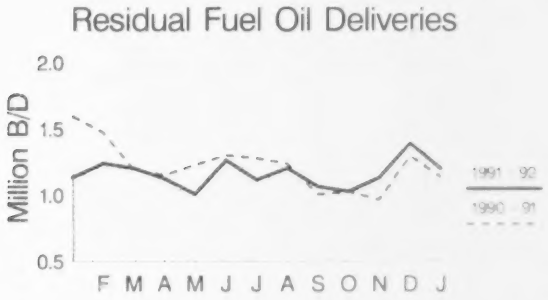
Already on the mild side a year ago, temperatures in New England and the Mid-Atlantic states moderated further in January, keeping power generation essentially unchanged from a year ago in the Northeast. Meanwhile, mild weather elsewhere in the country is believed to have freed up natural gas supplies, otherwise destined for home and commercial heating purposes, for consumption by utilities. While it is true that spot resid prices fell more dramatically, January to January, than natural gas prices—30 percent versus 15 percent—it is also true that at the end of January, gas prices were about as low as they have been in 13 years.

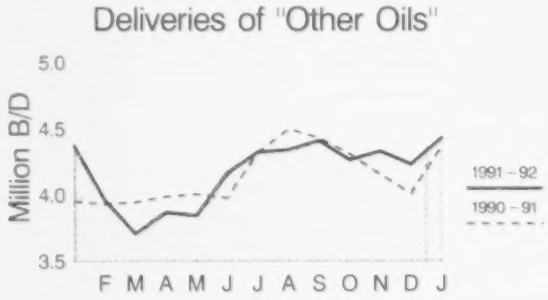
A key factor affecting the trend in resid consumption was this month's official opening of the Iroquois Gas Transmission System. The system, whose capacity is rated at 576 million cubic feet/day, brings gas supplies from Canada into New England, New York, and New Jersey. While presently thought to be operating at about 40 percent of this capacity, the pipeline system, once fully operational, could theoretically supplant as much as 95 thousand B/D of resid demand. During the winter, however, roughly two-thirds of pipeline capacity will be used to supply gas for space heating rather than for industrial and utility use. Thus, the potential impact on winter resid demand could be in the 30-35 thousand B/D range.

Other Oils

WARM WEATHER FREES UP PROPANE SUPPLIES. Deliveries of "other oils" were up 1.4 percent in January versus a year ago—roughly in line with the estimated trend of slight growth. However, with the sometimes-variable nature of "other oils" deliveries on a monthly basis, this may be more of a coincidence than anything else.

Propane demand in the chemical sector was likely boosted as it regained a price advantage over other petrochemical feedstocks. Stocks in major residential consuming regions had entered the heating season at levels close to or higher than year-ago levels, and with what has so far been the warmest winter in nearly ten years, some propane supplies have had to find other markets.





SUPPLY [1/]

Production

YEAR-TO-YEAR DROP UNDERSTATES DECLINE. Domestic crude oil production's decline for January—at 2.1 percent or about 155 thousand B/D below the year-ago level—does not fully convey the more-rapid rate of dropoff observed in the last half-year. Since the current decline did not begin until the middle of 1991, the most recent trend appears to be about double the rate indicated by year-to-year calculations.

Compared with last January, Alaskan output was down 3.2 percent or 60 thousand B/D while lower 48 production was down 1.7 percent or 95 thousand B/D. Versus June, January's Alaskan production was only about even—even though summer output tends to run lower than the rest of the year. We estimate the current decline rate in Alaska at close to 100 thousand B/D per year. For the lower 48, the decline since the middle of last year implies an annualized rate of decline of about 200 thousand B/D. In sum, with an estimated decline trend of about 300 thousand B/D per year, U.S. domestic crude oil production has been dropping at an annualized rate of about 4 percent.

Imports

PRODUCT IMPORTS SLIPPING OVER PAST TWO MONTHS. Total imports rose year to year for the sixth month in a row in January. The 4.3 percent, 305 thousand B/D increase came as an increase in crude oil imports more than offset a 210 thousand B/D decline in product imports, reflecting in part a smaller domestic stock draw this January than last.

Product imports, at 1.6 million B/D for the month, were the lowest since last March, the result of continued lackluster demand combined with less-attractive import prices versus domestic sources. Imports of finished gasoline fell about 25 thousand B/D, year to year, to 203 thousand B/D, compared with levels as high as 270 thousand B/D as recently as November. Residual fuel oil imports fell about 90 thousand B/D to 330 thousand B/D, well below their 400-500 thousand B/D range that has been typical for the past year. Imports of distillate fuel oil, however, rose 20 thousand B/D from a year ago to 210 thousand B/D—but were still down from levels of 240 to 280 thousand B/D of the prior two months.

Refinery Operations

UP FROM A YEAR AGO BUT DOWN FROM PREVIOUS MONTH.

Despite growing 1.2 percent, year to year, during January, input into distillation units fell by a more-than-typical 439 thousand B/D, December to January. Above-trend refinery activity in December was partly responsible for the size of the month-to-month drop. Still, January levels appear to have been down slightly, on a seasonally-adjusted basis, from recent previous months.

As for the composition of refinery output, the shift in emphasis from production of distillate fuels to gasoline, evidenced in the latter half of December, continued during January. This shift had been prompted by moderate winter weather and relatively high distillate inventories. Motor gasoline production rose 5.7 percent, year to year, for the month, while distillate production rose a more moderate 1.0 percent, and jet kerosine production fell 9.5 percent from relatively high levels a year ago. As a result, yields of middle distillates (distillates and jet kerosine) fell to their lowest January level in five years.

Utilization of capacity in operation, at about 86.5 percent, was little changed from that of a year ago, although it was about 1.5 points below the January average for the previous five years. As a percent of reported capacity, the rate is estimated to have been 83.2 percent.

Inventories

DISTILLATE STOCKS APPROACH MORE TYPICAL LEVEL.

Total stocks, which, other things equal, would be expected to stay roughly even during January, dropped a substantial 27 million barrels for the month. However, changes in total inventories in January have typically been among the most volatile of the year. In the previous five years, stocks have fallen during January by as much as 34 million barrels and risen as much as 48 million barrels, the latter due to restocking after an exceptionally cold December in 1989.

Crude stocks, however, with slackening refinery activity, actually rose 7 million barrels during the month, from December's lower-than-typical level of 328 million barrels to 334 million barrels.

Distillate stocks, which in December had been at their highest year-end level in five years, were approaching more common levels by the end of January as a result of the shift away from distillate production at refineries over the past two months. Distillate inventories dropped 16 million barrels, versus an average 6 million barrels in Januarys of recent years. At 127 million barrels, they were 3 million barrels above the recent-year average compared with about a 15 million barrel gap in December.

Gasoline stocks typically rise in January, the result of lower seasonal demand combined with continued refinery activity for meeting winter fuel demand. This January, however, with the ebb in refinery activity from December's level, gasoline stocks rose only about 10 million barrels compared with the recent-year average of about 17 million barrels. Nevertheless, with the inventory builds of the past two months, gasoline stocks still reached 230 million barrels at the end of January, higher than for the last several months but still about 10 million barrels below the recent-year January average.

Crude Oil Production

Total Imports

Input to Distillation Units

Total Inventories

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of January 31, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	JANUARY			YEAR-TO-DATE		
	1992/1	1991/2	% Change	1992/3R	1991/2	% Change
Products Supplied:						
Total motor gasoline	6,821	6,643	2.7			
Finished leaded motor gasoline/*	147	281	(47.7)			
Finished unleaded motor gasoline/*	6,674	6,362	4.9			
Naphtha-jet	159	181	(12.2)			
Kerosine-jet	1,412	1,367	3.3			
Distillate fuel oil	3,365	3,356	0.3			
Residual fuel oil	1,201	1,133	6.0			
All other oils/4	4,431	4,371	1.4			
Reclassified/5	-178	-169	5.3			
Total domestic products supplied	17,211	16,882	1.9			
Exports	921	1,199	(23.2)			
Total products supplied	18,132	18,081	0.3			
Supply:						
Domestic production:						
Crude oil/6	7,211	7,364	(2.1)			
Natural gas liquids	1,684	1,635	3.0			
Other supply/7	1,007	837	20.3			
Total domestic supply	9,902	9,836	0.7			
Imports:						
Crude oil, total/8	5,816	5,303	9.7			
Canadian	851	722	17.9			
Other	4,965	4,581	8.4			
Products, total	1,555	1,763	(11.8)			
Residual fuel oil	331	422	(21.6)			
Other	1,224	1,341	(8.7)			
Total imports	7,371	7,066	4.3			
Total supply	17,273	16,902	2.2			
Stock change, all oils	-859	-1,179	******			
Refinery Operations						
Input to crude oil distillation units	13,077	12,928	1.2			
Operable capacity	15,709	15,670	0.2			
Refinery utilization (%)/9	83.2	82.5	0.8			
Crude oil runs	12,883	12,727	1.2			

Stocks (millions bbls.)	1992–1991		1991/2	% Change from	
	Jan. 31/10	Dec. 31/10	Jan. 31	Previous month	Year Ago
Crude oil/8	334.4	327.8	320.1	2.0	4.5
Unfinished oils	100.7	99.4	102.0	1.3	(1.3)
Total motor gasoline/**	229.8	220.1	227.3	4.4	1.1
Finished leaded motor gasoline/*	5.5	5.4	10.0	1.9	(45.0)
Finished unleaded motor gasoline/*	186.6	177.1	177.2	5.4	5.3
Naphtha-jet	4.6	4.7	6.0	(2.1)	(23.3)
Kerosine-jet	40.1	45.0	44.5	(10.9)	(9.9)
Distillate fuel oil	127.2	143.2	112.1	(11.2)	13.5
Residual fuel oil	43.9	48.9	47.6	(10.2)	(7.8)
All other oils	139.4	157.7R	141.4	(11.6)	(1.4)
Total all oils	1,020.1	1,046.8R	1,001.0	(2.6)	1.9

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 16, No. 2

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FEBRUARY 1992

SUMMARY

Total refined product deliveries grew year to year in February but, as was the case in December and January, the growth resulted primarily from the extreme weakness a year ago. February's 2.5 percent growth came against what were the lowest February deliveries in five years. Examined instead on a month-to-month basis and adjusted for typical seasonal variation, there has been no real sign of strengthening in deliveries since mid-1991. In light of the continuing longer-term trend towards greater conservation and switching away from petroleum, such flat performance would not have been unexpected, even with modest economic growth.

For individual products, results were mixed. Deliveries of gasoline and distillate were up, year to year, albeit at rates greater than underlying consumption trends would indicate. Gasoline's 3.0 percent year-to-year increase contrasted with an estimated 1-2 percent increase in consumption, while distillate's 9.3 percent increase was more than twice what growth in transportation and heating use would suggest. Jet fuel's 5.1 percent deliveries' decline, because of contrasts in non-primary inventory patterns with last year, diverged from an estimated increase in miles flown of a comparable magnitude. Meanwhile, with inexpensive and plentiful natural gas supplies, residual fuel deliveries fell 9.6 percent from already depressed levels a year ago, reaching the lowest February level in over 40 years.

Domestic crude production fell about 250 thousand B/D, or 3.4 percent, during February. While the decline was roughly in line with the trend we had been estimating in recent months, the year-to-year drop was nonetheless the sharpest such decline in nearly a year and a half. Roughly 60 percent of the decline occurred in the lower 48, with a disproportionate share of that believed to have been onshore.

Uncertainty over the direction of world oil markets is believed to have influenced February's imports, refinery activity, and inventory patterns, as refiners and importers appeared reluctant to hold excess inventories. So far as imports are concerned, February's total was little changed from that of a year ago; however, given trends in production and deliveries, imports for the month were nearly a million B/D below what we estimate underlying needs to have been, net of stock changes and seasonal patterns.

As for refinery activity, inputs fell a sharp 5.1 percent, year to year, reaching their lowest level for any month in nearly five years. Production of distillates, jet fuel, and residual fuel oil all fell more sharply than the decline in inputs. Only gasoline production remained relatively strong, growing 3 percent, year to year.

Total petroleum inventories dropped more than is typical during February. The month's 24 million barrel decline brought total stocks to essentially the same levels as a year ago, when they had reached their lowest level for the month in over a decade. Crude inventories rose 7 million barrels during the month, while product inventories, led by the nearly 20 million barrel drop in distillate stocks, fell 32 million barrels.

PRODUCT SUPPLIED[1/]

Gasoline

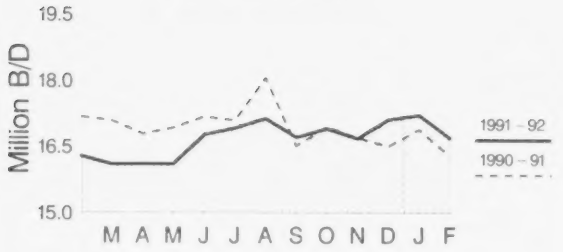
TRAVEL WEAKER THAN DELIVERIES SUGGEST.

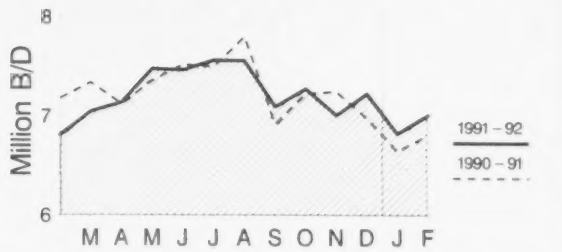
Year-to-year increases for gasoline deliveries over the past three months have averaged around 3 percent, but consumption indicators do not suggest a growth trend in actual usage of such a magnitude. Part of February's 3 percent increase was the result of exceptionally weak deliveries a year ago—the weakest February in four years. Part is also because deliveries this February appear to have been a bit above the recent trend.

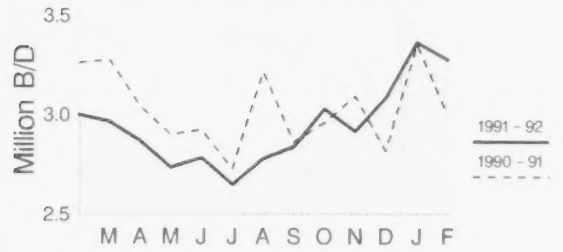
Data on travel suggest that any year-to-year increase in consumption would have been smaller. Though December's miles traveled were up an unusually large 4.4 percent, year to year, travel over the fourth quarter as a whole was up only about 2.5 percent. If this trend continued into 1992, a year-to-year increase in the neighborhood of 3 percent in travel for February would have been expected, other things equal, translating into an increase of 1 to 2 percent in gasoline demand from depressed levels of a year ago.

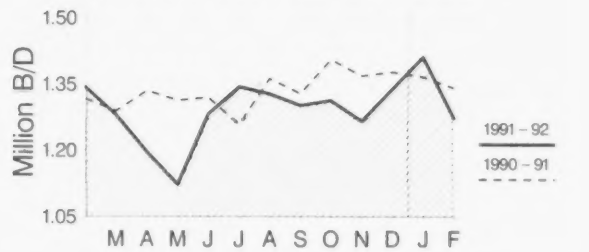
Demand may have also been given a small boost by unseasonably warm weather over the past several months because of conditions more hospitable to driving. We estimate that this could have added to the year-to-year comparison as much an additional half a percent.

	API ESTIMATES FEBRUARY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	2.5	17.0	2.2
Crude production[2/]	7.3	(3.4)	7.3	(2.2)
Total imports[3/]	6.9	0.6	7.1	2.5
Stocks (million bbl)[3/]	993	0.1	na	na









Retail gasoline prices fell again in February to a monthly average of about $1.05 per gallon for unleaded regular. This was down about 10 cents from a year ago, bringing it to a three year inflation-adjusted low.

Distillates

DEMAND UP MODESTLY, DELIVERIES UP SHARPLY. Colder weather and increased transportation demand helped push distillate deliveries up, year to year, during February. However, the 9.3 percent (or nearly 280 thousand B/D) increase from February a year ago was larger than the estimated increase in underlying consumption. While deliveries for the month were moderately above trend, most of the variance between delivery and consumption growth resulted from below-trend deliveries in February a year ago, when non-primary inventories draws are believed to have been relatively large, and when low jet fuel prices encouraged substitution (via increased blending) of jet kerosine for distillate fuel.

Despite what has so far been the warmest winter on record, and despite the fact that temperatures nationwide during February were almost 20 percent above their long run average, weather for the month was slightly colder than during February a year ago. In the Northeast, degree days climbed more than 10 percent from last February, contributing to the estimated 75 thousand B/D year-to-year increase in heating fuel consumption nationwide.

Transportation demand for the month was up versus last year, as well. Based on recent trends in truck and rail travel, we estimate that diesel demand in each of these sectors climbed by about 4 percent, year to year. Such increases would add perhaps 40 thousand B/D to highway demand and 10 thousand B/D to rail demand compared to last year.

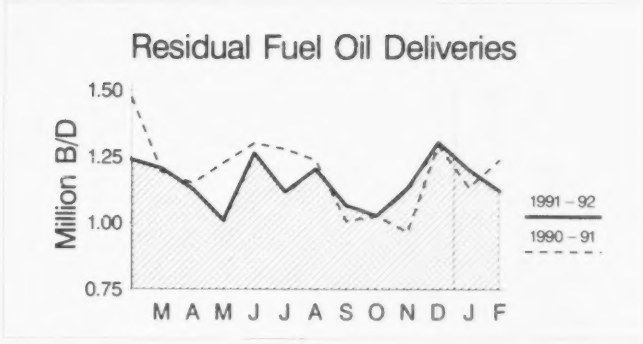
Distorting the year-to-year trend were weak deliveries a year ago. Contributing to that weakness was the unusual price relationship between distillate and jet kerosine seen during the month. Usually trading at a premium to distillate fuel, jet kerosine prices plunged last February following early Allied air success in the Gulf War, and amid extremely weak jet fuel demand in the commercial aviation sector. By mid-February 1991, jet fuel was actually trading at a 6-7 cents/gallon discount to distillate fuel. The anomalous price relationship is believed to have encouraged additional blending of jet kerosine with diesel and heating fuel, thus suppressing distillate deliveries.

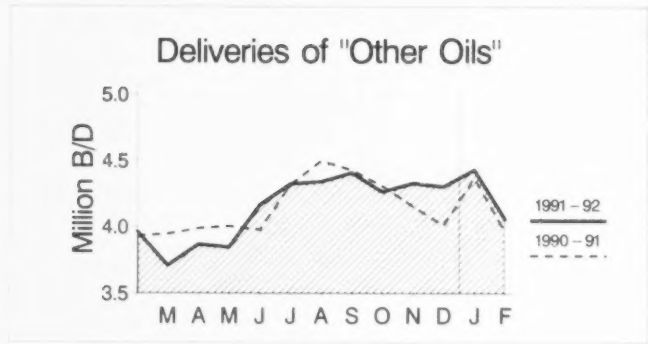
Contrasts in non-primary inventory patterns this year versus last also help explain the variance between growth in deliveries and growth in consumption. Secondary heating fuel inventories were reportedly high heading into February a year ago, and declined 3-4 percent during the month. In contrast, secondary heating fuel inventories are reported to have actually increased by about 2 percent during this February.

Kerosine Jet Fuel

DELIVERIES FALL DESPITE GROWTH IN AIR TRAVEL. In contrast to the year-to-year increase in miles flown by commercial airlines, jet kerosine deliveries fell 5.1 percent, February to February. The decline resulted in part from above-trend deliveries a year ago when (as was discussed in the distillate section) particularly low jet fuel prices encouraged more blending with diesel and heating fuel. Putting last year aside, however, deliveries this February were still at a five-year low for the month, suggesting that non-primary inventories were drawn more than usual this February.

Commercial air travel is generally the best indicator of underlying jet fuel consumption. Typically already at a seasonal low during February, miles flown on commercial airlines were particularly weak in February 1991 following the outbreak of hostilities in the Persian Gulf. While air travel's late 1991 recovery appears





to have stalled in the last month or two, miles flown grew by an estimated 5-6 percent, year to year, during the month, primarily because of last February's weakness.

Non-primary inventory draws during the month, perhaps made possible by above trend deliveries during January, and perhaps spurred by uncertainty over the direction of future prices, may have contributed to February's relatively low delivery level. Over the course of the month, jet fuel prices fell 3-4 cents per gallon, perhaps encouraging purchasers to postpone deliveries.

Residual Fuel Oil

DOWN ANOTHER 10 PERCENT FROM YEAR-AGO LOWS. Deliveries of residual fuel oil fell 9.6 percent, year to year, during February. At 1.12 million B/D, they were at their lowest February level in over 40 years. Inexpensive natural gas, made more abundant by moderate winter weather and increased deliverability from Canada, contributed to the month's weakness. While February's decline reversed five consecutive months of year-to-year increases, those increases had resulted largely from comparisons against crisis-related lows in the prior year period. Seasonally-adjusted deliveries, by our estimates, have been falling since late last summer.

Although more moderate than normal nationwide, weather was slightly colder this February than last. However, while the year-to-year increase in degree days contributed to a 3-4 percent increase in electricity generation in the New England and Mid Atlantic states (where the nation's resid-fired generation is concentrated), it is thought that most incremental power demand in these states was satisfied via increasingly economical natural gas.

Contributing to natural gas's competitiveness vis-a-vis resid in the Northeast during February was the expanded operation of the Iroquois Gas Transmission System from Canada during the month. Operating at only about a third of its 576 million cf/d capacity during December and January, capacity utilization doubled from this average during February. With residential and commercial natural gas demand believed to be relatively insensitive to new sources of supply in the short run, most incremental gas supplies arriving in the region via the Iroquois system are thought to serve industrial and utility needs—in many cases supplanting resid consumption. February's gas deliveries through Iroquois, reportedly about 380 million cf/d could have, in theory, displaced as much as 65 thousand B/D of resid. The degree to which gas actually displaced resid is yet to be determined. However, any resid-to-gas substitution resulting from the pipeline's opening would accelerate the trend rate of decline in resid deliveries, which we have been estimating at about a 6-8 percent annual rate in recent months.

Other Oils

FEEDSTOCK STRENGTH COMPENSATES FOR WARM WEATHER. For February, deliveries of "other oils" rose 2.4 percent. The main factors in the year-to-year increase were likely growth in petrochemical feedstock deliveries, both for ethane and for heavier feedstocks (and gasoil in particular), partially counterbalanced by relative weakness for most other products. Propane demand, though no doubt benefiting in the chemical sector from competitive prices relative to other feedstocks, suffered in the residential/commercial sector from the month's warm weather.

The pattern so far this year apparently continued that of 1991, as evidenced in full-year data for individual products now available from the Department of Energy. The modest 0.8 percent, 30 thousand B/D increase for the year for "other oils" as a whole was again mainly due to 10 percent gains for ethane and gasoil petrochemical feedstocks (amounting to approximately 50 thousand B/D and 40 thousand B/D, respectively), along with a 5 percent, 20 thousand B/D rebound for propane from the prior year's dip. One of the major factors counterbalancing these increases was a drop in asphalt deliveries of about 9 percent or 40 thousand B/D. Deliveries of lubricants, petroleum coke, and naphtha feedstocks, along with production and usage of refinery gases, declined as well.

SUPPLY [1/]

Production

YEAR-TO-YEAR DROP LARGEST SINCE AUTUMN 1990. February's domestic crude oil production fell, year to year, by the largest amount in nearly a year and a half. Down more than 250 thousand B/D or 3.4 percent from last year's high point in February, the decline was roughly in line with the estimated current decline trend for domestic crude oil output. Production fell 100 thousand B/D in Alaska and about 150 thousand B/D in the lower 48.

Despite the current decline trend onshore, offshore crude oil production has been boosted, at least temporarily, by several developments in the Gulf of Mexico and offshore California. Offshore production from existing fields had been declining at an average rate of over 5 percent per year between 1986 and 1990—slightly faster than the corresponding rate onshore. However, early in 1991, production began rising and month-to-

month increases continued through most of the year, with preliminary estimates of production rising to nearly 1.1 million B/D in October compared to 960 thousand B/D in October 1990.

For offshore Louisiana, most of the increase of roughly 40 thousand B/D can be attributed to two deepwater projects in the Gulf of Mexico. Cognac platform had been shut in for redevelopment in mid-1989. In March of 1991 production resumed from several of the developed wells with the remainder coming on stream by year end. This increased production by as much as 17 thousand B/D. Also, production began increasing from Bullwinkle platform in August after permanent production facilities were installed. Bullwinkle platform, in 1,353 feet of water, is currently the world's tallest fixed offshore structure.

In California, a major component of the offshore increase late last year was from Point Arguello, which had begun production last June. Production from Point Arguello showed gains through October and has leveled off at about 35 thousand B/D.

Thus, were it not for the mitigating effects of increased production offshore, lower 48 production would be declining by more than the aggregate figures suggest. Although available data breaking out offshore and onshore production are often revised and, in any event, are not available for the most recent months, the evidence suggests than onshore lower 48 production's decline rate has recently been on the order of 250-300 thousand B/D per year.

Imports

OFF NEARLY A MILLION B/D FROM UNDERLYING NEEDS.

Total imports, though up slightly year to year, were down compared with prior months, to 6.9 million B/D, the lowest level in nearly a year. But the underlying trend in import needs, we estimate, has been running at a substantially greater amount and gradually increasing. February's lower import level contrasted with a recent monthly high of 8.6 million B/D last August and likely reflected reticence to hold excess supplies in the face of uncertainties in world oil markets.

The longer-term trend in import requirements has been running at a significantly higher level than suggested by February's raw imports figure. Based on an analysis of imports adjusted for domestic inventory changes and taking into account typical seasonal patterns in demand and supply, we estimate that the underlying trend in import needs has been running at 7.7-7.8 million B/D—nearly 1 million B/D higher than February's actual imports. With domestic crude oil production dropping, the trend is approaching the underlying requirements of just over 8 million B/D just prior to Iraq's invasion of Kuwait in August 1990.

February's year-to-year rise in product imports of nearly 17 percent may sound substantial enough, but the increase was from February 1990's exceptionally low level of 1.35 million B/D. Product imports then had been the lowest in nearly ten years because of weak domestic demand and high foreign prices relative to domestic sources. This February, at 1.57 million B/D, they differed little from January's level and were actually lower than during the second half of 1991 by about 285 thousand B/D.

Individual products followed a similar pattern. Imports of finished gasoline at 242 thousand B/D, distillates at 195 thousand B/D, kerosine jet fuel at 46 thousand B/D, and residual fuel oil at 422 thousand B/D, were all up substantially from year ago levels but weaker than in the second half of 1991.

Refinery Operations

WEAKEST ACTIVITY IN 5 YEARS, BUT GASOLINE OUTPUT UP.

Refinery activity, which had begun to slacken off during January, fell considerably during February. The 5.1 percent year-to-year decline in total inputs to distillation units brought this measure of refinery activity to its lowest level for any month in nearly five years. With primary inventories falling more than usual for February, and with crude and product prices falling throughout much of the month, it is believed that refiners cut throughput to lessen the price risks of holding excess inventories.

Despite the nearly 670 thousand B/D year-to-year drop in refinery inputs, gasoline production remained relatively strong, continuing the pattern of the past few months. While gasoline production grew 3 percent, year to year, production of other major products declined sharply. Distillate output was off 6.8 percent, while production of jet kerosine and residual fuel oil fell 14.2 percent and 14.6 percent, respectively, from levels a year ago.

This year's early shift from distillate to gasoline production was prompted by relatively low distillate prices. Moderate weather left primary distillate inventories relatively high at the beginning of the year, and pushed prices down relative to crude and gasoline. In spot markets, gasoline sold at a 2-4 cents per gallon premium over distillate throughout the month, in contrast to the 2-4 cents per gallon discount of last February.

Not surprisingly, the sharp drop in refinery inputs translated into a decline in refinery utilization rates. Utilization, as measured either in terms of capacity in operation, or in terms of reported capacity, fell more than 4 points from rates a year ago. At 82.9 percent and 79.9 percent, respectively, both were at their lowest levels since March 1987.

Inventories

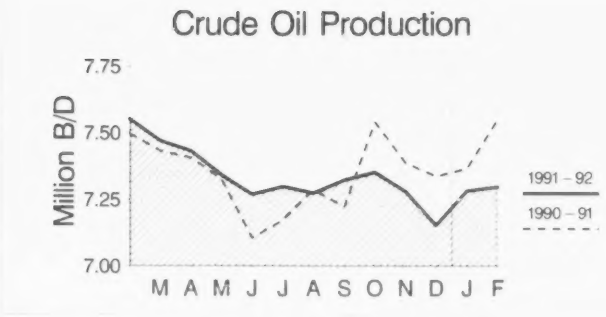
DISTILLATE STOCKS FALL; TOTAL STOCKS MATCH YEAR-AGO LOW.

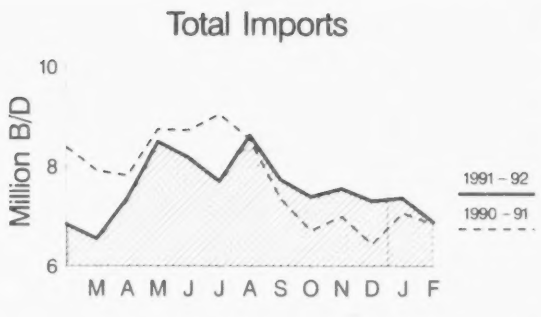
Total stocks continued to drop more than seasonally in February. Over the past two months, they have fallen more than 50 million barrels versus a more typical 10-15 million barrels suggested by historical data. At 993 million barrels, they were nearly identical to year-ago levels which had been the lowest February level in more than a decade.

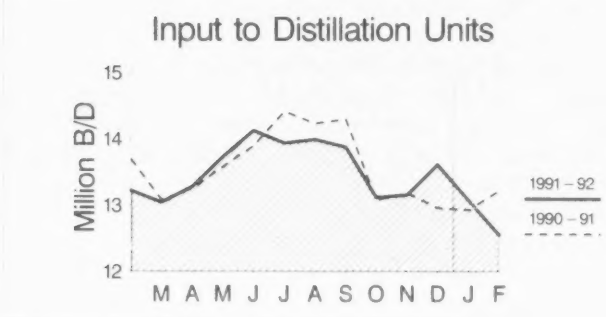
Last February's low level had been the result of the greater reliance on domestic inventories during the Persian Gulf crisis after the loss of Kuwaiti and Iraqi oil to world markets. This February's low level, however, apparently reflected reluctance to hold excess inventories in the face of uncertainty about the direction of world oil markets.

Among the major products, distillate fuel oil's nearly 20 million barrel drop from January accounted for much of product stocks' 32 million barrel decline. Though distillate's drop was greater than the historical average of about 13 million barrels, it served mainly to bring distillate stocks, which had been at a five-year December high two months previously, down to a level more in line with historical month-end levels.

Gasoline stocks changed little over the month; at 228 million barrels they were 7 million barrels above year-ago levels but about 10 million barrels under the recent-year average. Crude stocks rose 7 million barrels during the month to 342 million barrels, a not atypical level for crude stocks for February.







1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of Februaruy 29, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	FEBRUARY			YEAR-TO-DATE		
	1992/1	1991/2	% Change	1992/3R	1991/2	% Change
Products Supplied:						
Total motor gasoline	7,009	6,806	3.0	6,912	6,720	2.9
Finished leaded motor gasoline/*	149	214	(30.4)	148	249	(40.6)
Finished unleaded motor gasoline/*	6,860	6,592	4.1	6,764	6,471	4.5
Naphtha-jet	164	181	(9.4)	162	181	(10.5)
Kerosine-jet	1,274	1,342	(5.1)	1,345	1,355	(0.7)
Distillate fuel oil	3,279	3,000	9.3	3,323	3,187	4.3
Residual fuel oil	1,120	1,239	(9.6)	1,162	1,183	(1.8)
All other oils/4	4,057	3,963	2.4	4,250	4,178	1.7
Reclassified/5	-213	-247	(13.8)	-195	-206	(5.3)
Total domestic products supplied	16,690	16,284	2.5	16,959	16,598	2.2
Exports	1,072	1,441	(25.6)	994	1,314	(24.4)
Total products supplied	17,762	17,725	0.2	17,953	17,912	0.2
Supply:						
Domestic production:						
Crude oil/6	7,299	7,552	(3.4)	7,291	7,453	(2.2)
Natural gas liquids	1,711	1,690	1.2	1,697	1,661	2.2
Other supply/7	1,027	1,348	(23.8)	979	1,080	(9.4)
Total domestic supply	10,037	10,590	(5.2)	9,967	10,194	(2.2)
Imports:						
Crude oil, total/8	5,317	5,498	(3.3)	5,575	5,396	3.3
Canadian	816	877	(7.0)	834	795	4.9
Other	4,501	4,621	(2.6)	4,741	4,601	3.0
Products, total	1,571	1,346	16.7	1,563	1,565	(0.1)
Residual fuel oil	422	384	9.9	375	404	(7.2)
Other	1,149	962	19.4	1,188	1,161	2.3
Total imports	6,888	6,844	0.6	7,138	6,961	2.5
Total supply	16,925	17,434	(2.9)	17,105	17,155	(0.3)
Stock change, all oils	-837	-291	******	-848	-757	******
Refinery Operations						
Input to crude oil distillation units	12,549	13,218	(5.1)	12,822	13,066	(1.9)
Operable capacity	15,709	15,662	0.3	15,709	15,666	0.3
Refinery utilization (%)/9	79.9	84.4	(5.3)	81.6	83.4	(2.2)
Crude oil runs	12,401	13,052	(5.0)	12,650	12,881	(1.8)

Stocks (millions bbls.)	1992/10		1991/2	% Change from	
	Feb. 29/10	Jan. 31/10	Feb. 28	Previous Month	Year Ago
Crude oil/8	341.8	334.4	331.2	2.2	3.2
Unfinished oils	102.1	100.7	104.5	1.4	(2.3)
Total motor gasoline/**	228.4	229.8	221.9	(0.6)	2.9
Finished leaded motor gasoline/*	4.7	5.5	10.5	(14.5)	(55.2)
Finished unleaded motor gasoline/*	184.9	186.6	170.4	(0.9)	8.5
Naphtha-jet	4.6	4.6	5.9	0.0	(22.0)
Kerosine-jet	38.3	40.1	42.1	(4.5)	(9.0)
Distillate fuel oil	107.6	127.2	101.3	(15.4)	6.2
Residual fuel oil	43.1	43.9	44.6	(1.8)	(3.4)
All other oils	127.5	137.0R	141.4	(6.9)	(9.8)
Total all oils	993.4	1,017.7R	992.9	(2.4)	0.1

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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MARCH 1992

SUMMARY

Though there have been some recent hints of improvement in the economic outlook, the most recent data on petroleum deliveries have not shown any strengthening when viewed on a month-to-month, seasonally-adjusted basis. However, petroleum consumption historically has not really been a "leading indicator" of economic recovery—and thus, petroleum deliveries' continued weak showing, taken alone, may not necessarily have to be interpreted as an adverse economic omen. In terms of relative growth rates, petroleum demand has even tended to lag behind the economy due to continued petroleum efficiency gains and substitution of other fuels.

On a year-to-year basis, petroleum deliveries rose 1.7 percent for March and nearly the same for the quarter as a whole. But this was a hollow gain, given that deliveries in the year-ago period had been the lowest first quarter in five years. In fact, compared to the recent-year peak for first quarter deliveries in 1989, this year's first quarter deliveries were still off by a substantial 5.8 percent.

For individual products as well, year-to-year increases were partly a reflection of weak deliveries during the first quarter of last year. Although the year-to-year gain for the quarter of 2.6 percent for gasoline was, if anything, a bit stronger than suggested by underlying consumption indicators, kerosine jet fuel deliveries dropped nearly 5 percent despite indications of increased air traffic.

Meanwhile, the first quarter's domestic crude oil production fell 2.4 percent—the largest year-to-year drop in a year and a half. The 180 thousand B/D year-to-year decline put domestic output at less than 7.3 million B/D, 20 percent lower than for the same quarter of 1986.

Total imports rose 8.7 percent for March and 5.7 percent for the first quarter compared to the year-ago period. Although imports averaged 7.2 million B/D for the first three months, the underlying trend in imports requirements is still estimated to be running half a million B/D higher. Draws on domestic inventories during the first quarter of about twice the typical rate help to explain the difference.

Input to refineries was up marginally versus a year ago in March, but was still down close to 1 percent for the quarter as a whole. For March, the emphasis on gasoline over distillate production continued; gasoline output rose only slightly, year to year, while distillate fell nearly 6 percent. Though gasoline stocks ended the month somewhat below typical levels for March, they were still 9 million barrels higher than a year ago. Distillate stocks, with most of the heating season gone, dropped to 95 million barrels, compared with a recent-year minimum observed for the month of 90 million barrels.

PRODUCT SUPPLIED [1]

Gasoline

CONSUMPTION GROWTH LIKELY LESS THAN FOR DELIVERIES. Gasoline deliveries' recent year-to-year increases slackened in March to 1.1 percent, following increases in January and February averaging over 3 percent.

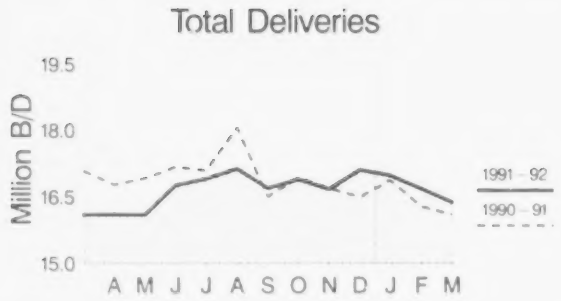
For the quarter, however, the increase still amounted to 2.6 percent over year-ago levels—giving the impression of greater strength than actually has been the case, since deliveries in last year's first quarter had been the lowest for gasoline since 1987. Even with the weakness of the year-ago period, and even with the slight demand boost likely given over the past winter by warmer weather and better-than-average driving conditions, this year's first quarter year-to-year deliveries increase seems a bit larger than was likely for consumption. We estimate that the consumption gain would have been more on the order of 1 to perhaps 2 percent.

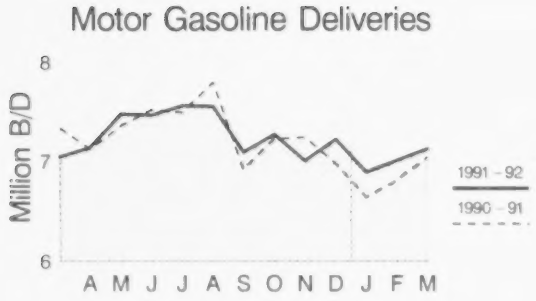
Although March's gasoline deliveries' growth weakened from prior months' increases, the most recent data on travel followed the opposite pattern. Travel in December and January, according to the latest estimates, were both up nearly 5 percent, year to year, and not just because of unusually restrained travel in the year-ago period. More-favorable-than-usual driving conditions likely played a part in this above-trend occurrence. If this was the case, a year-to-year increase for March of only half that magnitude would be estimated, based on the trend in travel in the months prior to December.

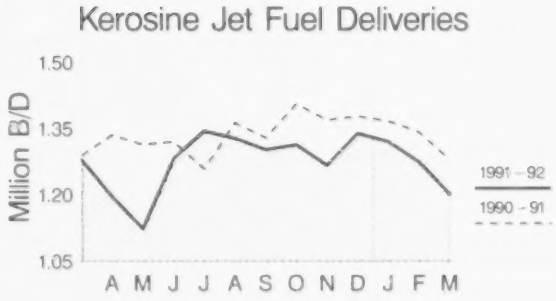
It appears that premium unleaded's market share may finally be regaining the 20 percent mark, according to Department of

API ESTIMATES

	MARCH		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.4	1.7	16.7	1.6
Crude production[2]	7.3	(2.8)	7.3	(2.4)
Total imports[3]	7.1	8.7	7.2	5.7
Stocks (million bbl)[4]	1,001	1.1	na	na







Energy data. Premium's share had dropped from 22-23 percent to less than 16 percent within a few months in response to higher prices following the outbreak of the Iraq-Kuwait crisis in mid-1990. Since then, with the subsequent drop in gasoline prices, its share has been inching upwards again, mainly at the expense of unleaded regular. That grade's share has slipped from just over 70 percent at the end of 1990 to about 67 percent more recently. Mid-grade unleaded's share has been gradually rising as well, and currently stands at around 12 percent, compared with just under 10 percent at the end of 1990. Leaded regular, which as recently as four years ago held a roughly 20 percent share, has dwindled to a bare 1 percent of the market.

Distillates

TRANSPORT AND HEATING USAGE BOOST CONSUMPTION. Amid indications that highway, heating and rail use of distillate fuels all increased, year to year, during March, deliveries rose 4.2 percent from the same month a year ago. For the month and for the year's first three months collectively—for which deliveries rose 2.8 percent—the change was directionally in line with underlying consumption indicators.

While first quarter weather was mild by historic standards, temperatures were lower this year than last. This was particularly true in March when heating degree days rose more than 20 percent, year to year, along the East Coast. Nationwide, by our estimates, the cooler weather would be expected to have contributed to a year-to-year increase of 85-100 thousand B/D in heating fuel consumption during the month.

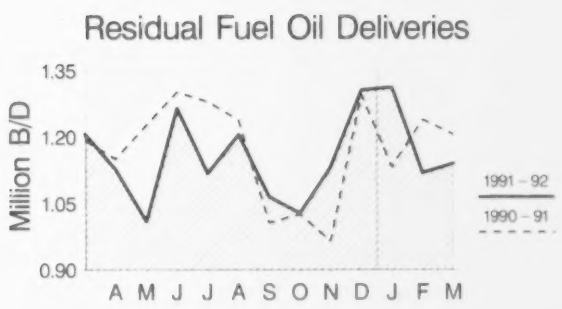
Transportation demand appears to have grown as well during March—albeit from extreme lows of a year ago. Based on trends in truck travel, we estimate that highway diesel demand grew about 4 percent, or about 40 thousand B/D during the month. Meanwhile, rail traffic reportedly increased 5-6 percent, year to year, during the month—growth which would translate into about a 10-15 thousand B/D increase in consumption, year to year.

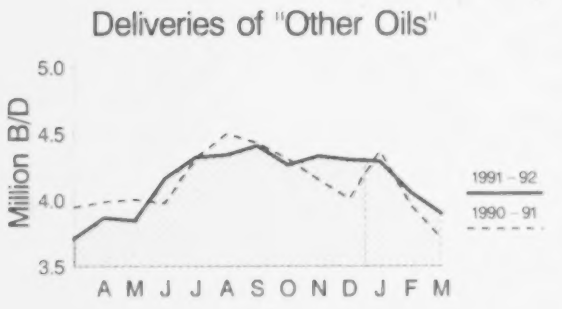
Kerosine Jet Fuel

DELIVERIES LAG AIR TRAVEL. Despite estimated year-to-year growth in miles flown by commercial airlines in each of the year's first three months, deliveries of jet kerosine fell 6.1 percent during March and 4.8 percent for the first quarter as a whole. March was the eighth consecutive month—and the twelfth in the last thirteen—in which deliveries fell, year to year. While the particularly sharp decline reflects, in part, the above-trend levels a year-ago, (when price relationships are believed to have encouraged above-normal blending with distillate fuels), jet fuel deliveries for the quarter were still the lowest for a similar period in five years.

After recovering through last summer from war-related lows of a year ago, air travel has been static, seasonally-adjusted, over the past six months. Still, we estimate that miles flown by commercial airlines grew 4-5 percent, year to year, during March—about on par with the increase for the quarter in aggregate. Such growth would bring miles flown close to their level of two years ago, when they reached a first quarter record.

Data from the Federal Aviation Administration confirms that commercial demand is up, year to year. During January and February, reported consumption by airlines grew 3-4 percent from the same period a year ago. Thus, it appears that non-primary inventory draws were larger (or builds smaller) this year than last. One factor influencing this may have been the exit of Pan Am and Midway airlines near the end of last year. Conceivably, this would have freed up non-primary inventories for use by other airlines, thus supplanting deliveries from current production and imports.





Weak military demand, due to a scaling back of activities, may also be contributing to the low level of deliveries. The Defense Fuel Supply Center reports that U.S. fuel liftings have been about 35 percent below contract allotments early in 1992—which is close to the minimum the contracts allow. This could account for as much as 20-25 thousand B/D of the year-to-year deliveries decline.

Residual Fuel Oil

DOWN FOR MARCH, FLAT FOR THE QUARTER. Despite growth in electricity output, more competitive resid prices, and indications of stronger bunker fuel demand, deliveries of residual fuel oil still fell 5.4 percent, year to year, during March. First quarter deliveries were only about even with the same period a year ago—when, adjusted for seasonal variations, they had already been the weakest for any quarter since the 1940s.

Weather during the month was colder than last March throughout most of the nation. The late winter chill contributed to about a 4-5 percent increase in power generation in the East, and at the same time, served to bid up natural gas prices relative to heavy fuel oil prices.

While this likely delayed the springtime switch from resid to gas in some places, utility inventories of resid are believed to have been more than adequate to absorb the impact. Based on DOE data, we estimate that utilities resid stocks nationwide represented over 130 days of forward consumption at the beginning of the year—more than 4 weeks above the average for the same period over the past 5 years. Given increased gas availability in the Northeast during January and February, due to mild weather and the opening of the Iroquois pipeline from Canada, it is thought that utility resid stocks were relatively high entering March.

Also tempering the demand for residual fuel by utilities has been continued growth in nuclear output because of higher capacity utilization. In recent months, nuclear generation has taken market share from oil, gas, and coal. During the fourth quarter of 1991, for example, while overall electricity demand was about flat, nuclear generation increased five percent, year to year. Early indications for 1992 are that nuclear growth has continued.

In bunker markets (which account for about a third of U.S. resid demand), indicators suggest that consumption may be strengthening. While growth in the dollar value of U.S. imports and exports reportedly slowed during the first quarter, growth in tonnage shipped remains strong, due to strength in petroleum imports and exports and to increased coal exports. Together, by weight, trade of these commodities represents roughly half of U.S. waterborne foreign trade.

Other Oils

SIGNS OF WEAKENING DEVELOP. Though deliveries of "other oils" rose 5.2 percent, year to year, for March, other indicators suggest that deliveries have recently been less robust than this increase might suggest. First, the March increase was against deliveries a year ago which had dipped to an unusually low 3.7 million B/D, more than 200 thousand B/D below the then-current trend. For the first quarter as a whole, deliveries averaged a more modest 1.1 percent higher than a year ago.

Second, although the most recent information on petrochemical activity suggests continued growth in that sector, overall deliveries of "other oils" seem to have been flattening out over the past several months, if typical seasonal variations are filtered out. On this basis, deliveries had been strengthening modestly from one quarter to the next throughout 1991; but for the first quarter of this year, deliveries were actually weaker by perhaps 1 percent than in the prior quarter.

SUPPLY [1/]

Production

LARGEST QUARTERLY DROP IN 1 1/2 YEARS. Domestic crude oil production dropped 2.4 percent for the first quarter, the largest year-to-year drop in a year and a half. The 180 thousand B/D decline, roughly evenly split between the lower 48 and Alaska, depressed U.S. crude oil production to 7.3 million B/D—20 percent lower than the 9.1 million B/D produced in the same period six years ago. Over that period, lower 48 production alone has fallen by nearly one fourth.

The underlying decline trend in recent months still appears to be on the order of 150-200 thousand B/D in the lower 48 and about 100 thousand B/D in Alaska. Simply because this more rapid rate of decline has been observed for less than a year, it has not had time to be fully reflected when comparisons are made against figures from twelve months ago. Thus, year-to-year comparisons understate the more rapid decline that has been evident in

recent months—a trend estimated at an annualized decline rate of 250- 300 thousand B/D for the U.S. as a whole.

Imports

RECENT LEVELS UNDERSTATE UNDERLYING NEEDS.

Total imports rose 8.7 percent for March and 5.7 percent for the quarter versus the year-earlier period. This year's first quarter imports averaged 7.2 million B/D, but without the draw on domestic inventories, which was roughly twice the typical rate for the first quarter, imports would have been significantly higher—about 7.7 million B/D, compared with a trend of just over 8 million B/D before the Iraqi invasion of Kuwait in mid-1990.

Although product imports gained 9.4 percent over last year's first quarter, their level, at 1.66 million B/D, was in fact relatively low compared with the past several years. Except for the year-ago period, this was the lowest level of any quarter since 1983, reflecting the weaker domestic demand of the past year or two.

Product exports, on the other hand, have at least temporarily reached a new high recently, if the period of the Persian Gulf crisis is excluded. According to the most recent data available, product exports rose from around 800 thousand B/D last summer to over 1 million B/D in December and January, mainly because of a jump in distillate exports in the face of weak domestic demand.

Product exports, though an essential part of the U.S. petroleum supply/demand balance, have historically been relatively small—amounting to about 5 percent of domestic demand and less than 2 percent of the value of merchandise trade exports in 1991, for example. (Petroleum imports, on the other hand, accounted for over 45 percent of domestic oil consumption and a little over 10 percent of merchandise imports).

Since the U.S. is a net importer of petroleum, it stands to reason that product exports arise mainly because of special circumstances. As examples, roughly half of last year's exports were heavy products such as petroleum coke and resid, for which domestic markets are limited; for a short period in 1990-91, product exports were boosted because of overseas military demand during the Persian Gulf crisis; weak domestic demand and cold weather in Europe in early 1991 also led to some increased heating oil exports; and the closure of Mexico's Azcapotzalco refinery last spring for environmental reasons led to modest increases in gasoline exports to that country.

As for the more recent developments in distillate exports, weak domestic demand and significant price differentials between U.S. and foreign markets boosted exports to Europe from 20-40 thousand B/D last summer to roughly 160 thousand B/D this January. Exports to the Far East similarly jumped from 30-50 thousand B/D to 130 thousand B/D over the same period, and overall distillate exports rose from 140-150 thousand B/D last summer to 300 thousand B/D in December and 360 thousand B/D in January. Data are not available beyond that month, but price differentials since then appear to have diminished somewhat, suggesting that the export "boomlet" may have been subsiding more recently.

Refinery Operations

GASOLINE STILL LEADS OVER DISTILLATE OUTPUT.

Refinery activity rebounded partially during March from February's depressed levels. But although up half a percent, year to year, for the month, the first quarter's inputs to crude distillation units were still off about 1 percent from the year-ago period. This put the first quarter's inputs at a five-year low for similar periods.

While colder weather and increased heating fuel demand narrowed the price gap between heating fuel and gasoline during March, refiners continued to focus on the latter. Output of distillates declined 5.6 percent versus last March, while gasoline production rose a modest 0.7 percent. With this increase, production of gasoline reached its highest first quarter mark since 1979. Meanwhile, kerosine jet fuel production, which had been down more than 10 percent, year to year, on average during the previous five months, rose 3.5 percent from last March—the first increase since August. Resid production strengthened modestly from recent months, but was nonetheless off slightly from a year ago.

Capacity utilization rose from February to March, but was down from year-ago levels. On the basis of reported capacity, utilization was at 83.4 percent, down about a point from a year ago. On the basis of capacity in operation, utilization, by our estimates, was at 87-88 percent.

Inventories

FIRST QUARTER DRAW DOUBLE THE AVERAGE RATE.

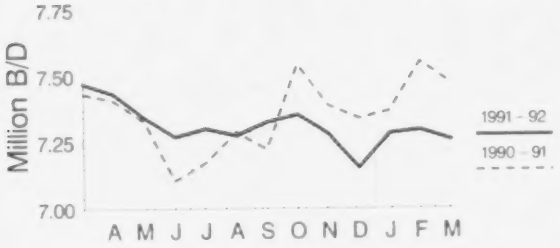
The 11 million barrel decline in total stocks for March was more or less in line with the historical average for the month, although for the first quarter as a whole, stocks' 46 million barrel drop was roughly double the typical rate. Gasoline and distillate stock declines in March of 8 million and 13 million barrels, respectively, were also roughly in line with typical patterns. Month-end levels of 220 million barrels for gasoline, though below the recent-year average of 230 million barrels, were still more than 9 million barrels above year-ago levels. Distillate stocks as well, at 95 million barrels, were less than the recent-year average for the month but 5 million barrels above the observed March minimum of 90 million barrels in 1988.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

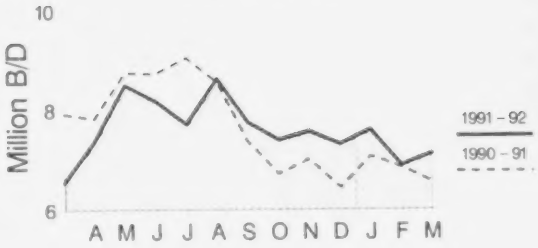
2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of March 31, 1992).

Crude Oil Production



Total Imports



Input to Distillation Units

Total Inventories

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ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	MARCH			YEAR-TO-DATE		
	1992/1	1991/2	% Change	1992/3R	1991/2	% Change
Products Supplied:						
Total motor gasoline	7,127	7,047	1.1	7,010	6,833	2.6
Finished leaded motor gasoline/*	106	310	(65.8)	129	270	(52.2)
Finished unleaded motor gasoline/*	7,021	6,737	4.2	6,881	6,563	4.8
Naphtha-jet	150	154	(2.6)	157	172	(8.7)
Kerosine-jet	1,201	1,279	(6.1)	1,265	1,329	(4.8)
Distillate fuel oil	3,091	2,966	4.2	3,197	3,111	2.8
Residual fuel oil	1,141	1,206	(5.4)	1,193	1,191	0.2
All other oils/4	3,898	3,706	5.2	4,082	4,015	1.7
Reclassified/5	-229	-258	(11.2)	-220	-224	(1.8)
Total domestic products supplied	16,379	16,100	1.7	16,684	16,427	1.6
Exports	1,178	944	24.8	1,133	1,186	(4.5)
Total products supplied	17,557	17,044	3.0	17,817	17,613	1.2
Supply:						
Domestic production:						
Crude oil/6	7,259	7,471	(2.8)	7,279	7,459	(2.4)
Natural gas liquids	1,695	1,670	1.5	1,697	1,664	2.0
Other supply/7	1,119	1,271	(12.0)	1,161	1,146	1.3
Total domestic supply	10,073	10,412	(3.3)	10,137	10,269	(1.3)
Imports:						
Crude oil, total/8	5,429	5,129	5.8	5,549	5,304	4.6
Canadian	781	764	2.2	793	784	1.1
Other	4,648	4,365	6.5	4,756	4,520	5.2
Products, total	1,693	1,421	19.1	1,659	1,516	9.4
Residual fuel oil	277	331	(16.3)	349	379	(7.9)
Other	1,416	1,090	29.9	1,310	1,137	15.2
Total imports	7,122	6,550	8.7	7,208	6,820	5.7
Total supply	17,195	16,962	1.4	17,345	17,089	1.5
Stock change, all oils	-362	-82	******	-472	-524	******
Refinery Operations						
Input to crude oil distillation units	13,105	13,044	0.5	12,936	13,058	(0 9)
Operable capacity	15,709	15,672	0.2	15,659	15,668	(0.1)
Refinery utilization (%)/9	83.4	83.2	0.2	82.6	83.3	(0.8)
Crude oil runs	12,883	12,832	0.4	12,743	12,864	(0.9)

Stocks (millions bbls.)	1992		1991/2	% Change from	
	Mar. 31/10	Feb. 29/10	Mar. 31	Previous Month	Year Ago
Crude oil/8	338.9	341.8	336.8	(0.8)	0.6
Unfinished oils	106.2	102.1	106.7	4.0	(0.5)
Total motor gasoline/**	220.0	228.4	211.3	(3.7)	4.1
Finished leaded motor gasoline/*	4.1	4.7	8.0	(12.8)	(48.8)
Finished unleaded motor gasoline/*	177.7	184.9	164.6	(3.9)	8.0
Naphtha-jet	4.5	4.6	5.9	(2.2)	(23.7)
Kerosine-jet	38.9	38.3	38.7	1.6	0.5
Distillate fuel oil	94.7	107.6	98.3	(12.0)	(3.7)
Residual fuel oil	41.0	43.1	42.9	(4.9)	(4.4)
All other oils	157.2	146.7R	149.8	7.2	4.9
Total all oils	1,001.4	1,012.6R	990.4	(1.1)	1.1

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January, U.S. DOE, February-March, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 16, No. 4

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APRIL 1992

SUMMARY

Total deliveries' year-to-year gains of the last several months continued in April, with deliveries rising an unusually large 4.2 percent and averaging a 2.5 percent increase for the year to date. Although much of the apparent increase for April, as in prior months, is primarily a reflection of weak deliveries a year ago, April deliveries, on a seasonally-adjusted basis, appear to have been stronger than in recent prior months. Thus, though it may be a bit premature to conclude that some degree of recovery in petroleum deliveries has definitely been taking place, recent data at least provide some encouragement that this could be the case.

On a year-to-year basis, all major products except resid shared in April's above-average increase. Kerosine jet fuel deliveries, in particular, after lagging behind air travel indicators for the last several months, jumped sharply in April. Gasoline deliveries rose 3 percent over a year ago, though the more recent, month-to-month trend in consumption growth is estimated to have been smaller. Distillate deliveries, with higher highway and rail traffic versus a year ago, showed a 5.1 percent gain for the month, while residual fuel oil's 2.7 percent increase masked inherent weakness in some demand sectors.

Refinery activity also strengthened considerably more than usual in April. Contrasting with the first quarter's five-year low, input to distillation units rose 1.4 percent over last April to a twelve-year high for the month. However, April's surge served mainly to counterbalance the first quarter's weaker performance, and for the year to date, refinery input only matched year-ago levels.

Total imports jumped 7.9 percent from a year ago, mainly because of stronger crude oil imports. Up by nearly 600 thousand B/D from last April and more than 800 thousand B/D from March, total imports reached nearly 8 million B/D for the month, compared with the current underlying trend in U.S. import requirements estimated at around 7.7-7.8 million B/D. Product imports were also stronger than in recent prior months, and were up 2.8 percent from a year ago as well.

Although April's pick-up in refining activity absorbed some of the increase in crude oil imports, crude oil stocks still rose during the month and accounted for most of the 16 million barrel rise in total inventories. Gasoline stocks, which usually decline during the spring, slipped a typical 4 million barrels during April. Though they ended the month below the recent-year average level for the month, they were still 10 million barrels higher than a year ago. Distillate stocks, which at the end of last year had been at their highest December level in five years, fell slightly to 93 million barrels during April, near the low end of end-of-season stocks observed in recent years.

Meanwhile, domestic crude oil output declined 1.5 percent in April versus a year ago. Alaskan production managed to match year-ago levels, interrupting the year-to-year dropoff for that region which had averaged 90 thousand B/D during the first quarter. Lower 48 output for the month fell 2 percent from last April.

PRODUCT SUPPLIED [1]

Gasoline

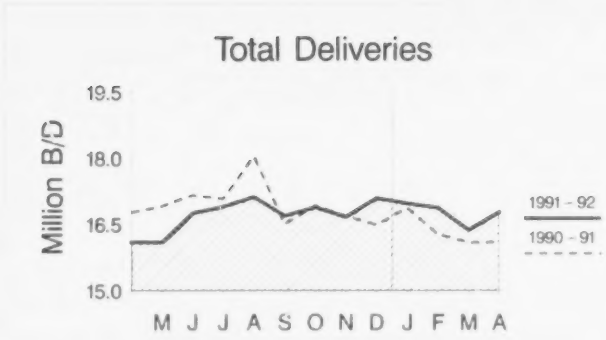
GAIN PUTS GASOLINE ONLY AT LEVEL OF TWO YEARS AGO.

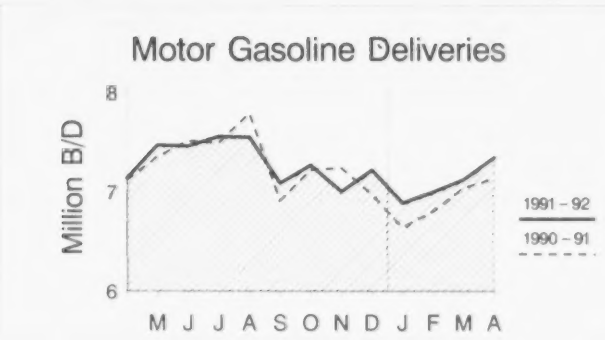
Gasoline deliveries rose 3 percent in April versus a year ago. With year-to-year gains every month so far this year, deliveries' year-to-date increase of 2.7 percent gives the appearance of greater strength than has actually been the case, since deliveries in the year-ago period were unusually weak. In fact, the gain in deliveries so far this year has served mainly to return gasoline deliveries to an average 7.1 million B/D for the first four months—only about the same as their level for the same period two years ago. Nevertheless, since the middle of last year, there appears to have been a modest upward trend in gasoline deliveries, running at an annualized rate of about 1 percent.

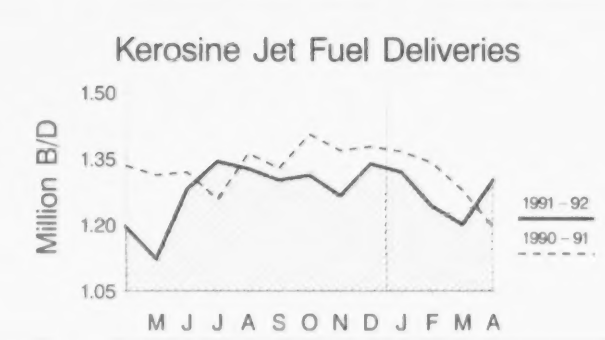
Data on miles traveled are available just through February, and these have also shown relatively strong year-to-year gains of 5.1 percent in January and 4.3 percent in February. The only-modest rate of economic growth over the last several quarters suggests that increases of this size most likely have not been sustained more recently.

Retail gasoline prices for April rose about 3 cents from March's monthly average, after declining about 8 cents a gallon over the previous four months. Historical data show that March

	API ESTIMATES APRIL		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.8	4.2	16.8	2.5
Crude production[2]	7.3	(1.5)	7.3	(2.1)
Total imports[3]	8.0	7.9	7.4	5.8
Stocks (million bbl)[4]	1,019	0.9	na	na







has typically been among the low months of the year for retail prices. Prices have in the past averaged 5 to 6 cents higher in early summer than in March, dropping off over the fall and winter.

Such patterns, of course, are more often than not obscured by short-range market developments, and are also subject to shifts in underlying supply and demand fundamentals. With the more stringent summer vapor pressure requirements in 1989, for example, and further tightening of requirements this year, summer gasoline (that is, gasoline meeting requirements for sale for the May-through-mid-September period) has become more costly to produce. To the extent that these increased costs work through to the retail level, this is one factor working towards greater seasonal variation in gasoline prices.

Distillates

TRANSPORTATION, WEATHER BOLSTER DELIVERIES.

Increased consumption of transportation diesel, in conjunction with moderate economic growth, contributed to April's 5.1 percent year-to-year increase in distillate deliveries. Still, given relatively cold weather during the month, growth in deliveries was about 50 thousand B/D below what indicators of consumption would suggest.

Temperatures during April were considerably lower than a year ago. The number of heating degree days climbed more than 30 percent both in the New England and Mid-Atlantic regions, where nearly two-thirds of the nation's heating oil consumption is concentrated. Based on historical relationships, we estimate that colder weather could have contributed to a 90-100 thousand B/D year-to-year increase in heating oil consumption nationwide.

As the heating season comes to a close, however, the focus in distillate markets is shifting to transportation sectors. On an annual basis, consumption of highway and rail distillates accounts for more than 55 percent of total distillate demand. And this share becomes considerably larger during the spring and summer months.

More so than consumption of heating fuel, transportation distillate demand is sensitive to the level of economic activity. Recently-released government statistics show that the nation's economy has grown very slowly in four consecutive quarters—translating to only a 1.5 percent year-to-year growth rate between the first quarters of 1991 and 1992. To put that in perspective, consider that during the 1982-1989 economic expansion period, annual growth for combined highway/rail diesel consumption averaged 4.1 percent, while gross domestic product growth averaged 3.6 percent. And between 1989 and 1991, in the midst of a stagnant economy, diesel consumption is estimated to have fallen slightly. Thus, the more recent hints of economic growth suggest that demand for diesel transportation fuels may be strengthening as well.

Indeed, indicators of rail and highway diesel demand have strengthened of late. During April, rail ton miles were reportedly up 6-7 percent, year to year. And recent indicators of truck ton miles suggest that highway diesel demand is up in the 7-8 percent range, year to year. Such growth could account for a combined increase in consumption of about 100-110 thousand B/D in these sectors. Although it is true that much of this growth reflects weakness in the year-ago period, we estimate that diesel use has been growing at about a 4 percent annual rate over the past 6 months. Such growth would bring diesel consumption in April near its all time high for the month.

Kerosine Jet Fuel

DELIVERIES BEGIN TO REFLECT GAINS IN TRAFFIC.

Deliveries of jet kerosine rose, year to year, during April for the first time since last July. The month's growth, at 9 percent, contrasted sharply with the 6.1 percent decline seen during

the year's first quarter, but came in conjunction with the fourth consecutive month of year-to-year growth in commercial air travel. Even with the large gains in April, however, deliveries have been off 2.2 percent thus far in 1992, while air travel has been up at more than double that rate.

As was the case during the first quarter, April's growth in air travel came against particular weakness a year ago, when air travel (and thus jet fuel consumption) languished in the wake of the Persian Gulf War. Still, passenger travel appears to have strengthened moderately in the past couple of months—even before the stimulative effects of April's air fare discounting was felt. Miles flown by commercial airlines are estimated to have reached an all-time high for April, growing 6-7 percent from a year ago. That rate of growth might have been stronger still, if not tempered by a 2-3 point year-to-year increase in the industry-wide load factor in recent months.

Residual Fuel Oil

INCREASE MASKS LONGER-TERM DECLINE TREND. Although residual fuel oil deliveries gained 2.7 percent year-to-year for April, their recent year-to-year increases have been possible only because of even weaker deliveries early last year. On net, underlying resid consumption has declined over the last several years, primarily because of market share losses in the utility sector. Year-to-date deliveries, for example, though up 4.8 percent over a year ago, were down roughly 9 percent from two years ago. Since the middle of last year, the trend in consumption has again been weakening, on a month-to-month basis, once typical seasonal variation is taken into account. Nonetheless, growth in overall power generation, increasing waterborne foreign trade, strengthening industrial output, and more competitive resid prices vis-a-vis gas, have kept that decline trend at perhaps about a 5 percent annual rate.

In recent months, residual fuel prices have been as competitive vis-a-vis gas prices as at any time in the past three years. This, coupled with the month's 2 percent year-to-year growth in electricity generation in the East, no doubt worked in resid's favor during April. With resid consumption particularly weak last spring, utility resid consumption was likely up, year to year. However, it appears that any "improvement" of late in utility resid demand is in the way of moderating losses—not in the way of a return to underlying growth. With nuclear plants operating at higher capacity early this year, and with additional gas supplies entering the Northeast from Canada, resid-burn is thought to be down, on a seasonally-adjusted basis, from levels last summer and last fall.

Meanwhile, in industrial and bunker markets, indicators of resid demand do appear to have strengthened modestly of late. According to government statistics, the industrial sector, which accounts for about 12 percent of resid demand on an annual basis, has been growing moderately since the beginning of the year. The index of industrial production was up about 2 percent year to year in March—the most recent data. Waterborne trade continues to grow as well, particularly for those commodities representing the largest share of oceanborne tonnage—petroleum, coal, and agricultural products.

Other Oils

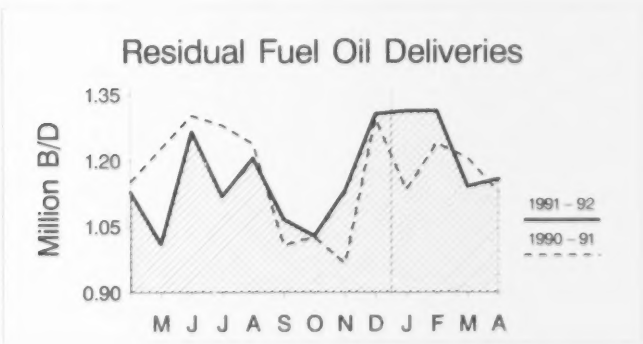
INCREASES STILL SURPASS THOSE OF TOTAL DELIVERIES. For deliveries of "other oils", year-to-year gains continued to be larger than for deliveries overall, with April rising 6.5 percent. For the year to date, deliveries were up 4.4 percent—nearly two percentage points higher than the rate for total product deliveries.

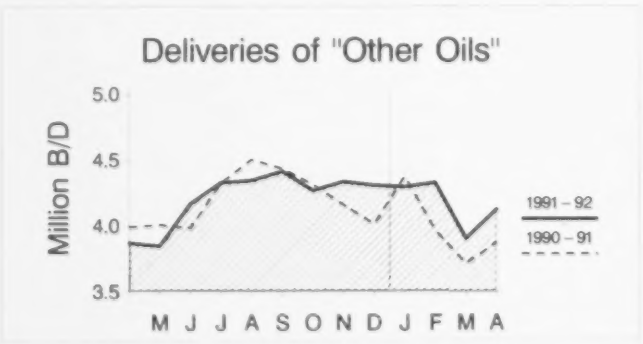
Although over the past decade, trends in deliveries of "other oils" have tended to track those of total deliveries, in the past two years "other oils" have managed to hold their own and even increase slightly while total deliveries were falling an average 2 percent per year—largely because of demand for petrochemical feedstocks. The year-to-year increase for the first four months of 1992 we estimate to have been more broad-based, representing higher levels for most components of "other oils" versus weak levels in early 1991. However, viewed with a shorter-range perspective over the past several months, on a seasonally adjusted basis, the recent trend for "other oils" appears to have been one of only modest growth.

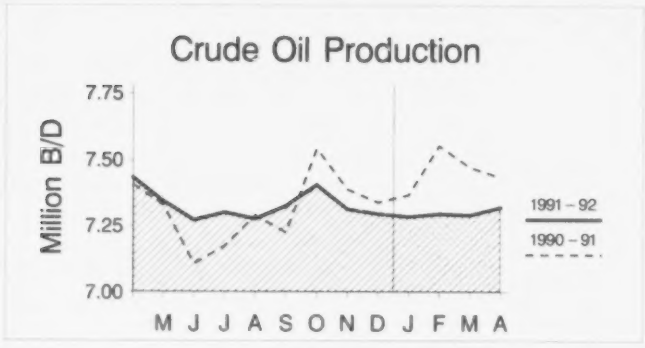
SUPPLY [1/]

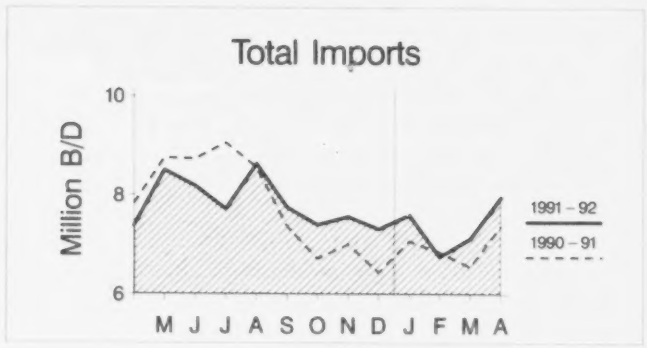
Production

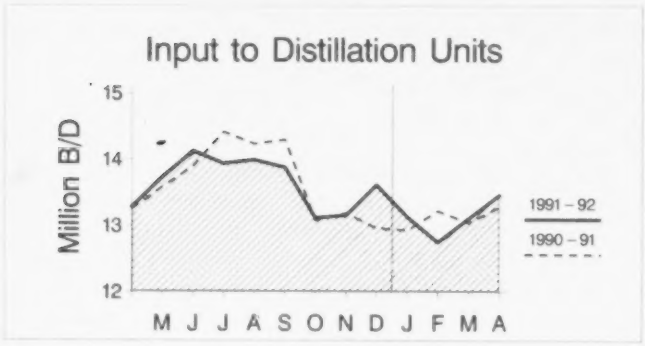
ANOTHER DECLINE IN CRUDE OUTPUT. Domestic crude oil production dropped 1.5 percent, or 113 thousand B/D in April versus one year earlier. This was smaller than declines in recent prior months because the dropoff in Alaskan production, which had been running at 90 thousand B/D in the first quarter, flattened in April. Lower 48 production, however, still fell 2 percent from last

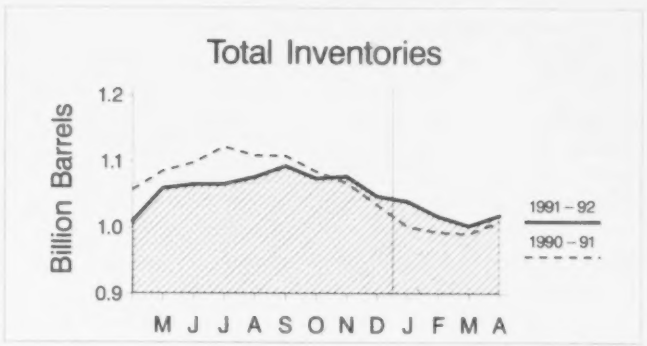












April, and continued to indicate a decline rate of 150-200 thousand B/D per year for crude oil production outside Alaska, once allowance is made for typical seasonal patterns.

The falloff in domestic production in part reflects flagging upstream activity. According to API's most recent estimates, total well completions fell 23 percent, year to year, in the first quarter. For oil well completions, the drop was especially sharp at more than 30 percent; gas completions dropped nearly 20 percent. Exploratory completions were unusually weak, dropping below the 1,000 mark to an estimated 840—not much more than half their level of five years earlier. For the last four quarters, exploratory completions have totaled only about 4,275, only a fourth of their level in 1981 and the lowest annual rate in more than forty years. Servicing of existing wells has also dropped sharply. For the first quarter, activity was off 22 percent from a year ago and at its lowest level in five years.

Imports

CRUDE OIL BOOSTS TOTAL IMPORTS. Total imports jumped 7.9 percent, or over half a million B/D, from a year ago in April. At nearly 8 million B/D, they were also substantially higher than the prior month's 7.1 million B/D—and were a bit more in line with our estimate of the underlying trend in U.S. import requirements of 7.7-7.8 million B/D. The increase in imports, whether against a year ago or against the prior month, was mainly attributable to an increase for crude oil, imports of which exceeded 6 million B/D for the first time since last August. Though April's more-than-seasonal pick-up in refining activity coincided with higher crude imports, the rise from 5.4 million B/D in March to 6.1 million B/D in April was greater than immediate refining needs and thus also served to build domestic crude oil inventories.

April's product imports were up 2.8 percent, or about 50 thousand B/D, from a year ago, and exceeded first quarter levels by roughly 200 thousand B/D as well. Imports of finished gasoline rose to a relatively strong 430 thousand B/D, up about 60 thousand B/D from a year ago and the highest in eight months. Distillates, at 224 thousand B/D, were off 34 thousand B/D from above-trend shipments a year ago, while kerosine jet fuel imports held even. Residual fuel oil imports, though up from March's unusually low level of less than 300 thousand B/D, dropped about 60 thousand B/D from last April to just under 360 thousand B/D.

As detailed last month, distillate exports, though a relatively small part of the overall supply/demand picture for that product, had surged over the December-January period as a result of weak domestic demand and significant price differentials with foreign markets. Apparently, as conjectured last month, exports have been declining as price differentials narrowed, and February data now show distillate exports slipped to 280 thousand B/D from a high of 360 thousand B/D in January; a further moderation has likely taken place since then.

Refinery Operations

ACTIVITY UP SHARPLY IN APRIL. Contrasting with the pattern of the first quarter, during which refinery activity fell to a five-year low, inputs to distillation units grew 1.4 percent, year to year, during April—reaching a twelve-year high for the month. It is not unusual for refinery activity to pick up from March to April, although this year's nearly 360 thousand B/D month-to-month increase in inputs was about triple the average of the previous four years. Growth in refinery output was shared by all major products, although skewed toward distillates. Gasoline and jet fuel production grew in the 2 percent range versus last April, while distillate production climbed nearly 5 percent. Resid production, meanwhile, was up fractionally.

This year's first quarter saw an earlier-than-usual turnaround from distillate to gasoline production, thanks to generally mild weather and the resulting weakness in heating fuel demand. However, April's refinery yields of middle distillates (including jet kerosine) surpassed 30 percent, approaching a record high for the month. With distillate inventories relatively low entering the month, refiners apparently increased production to satisfy growing deliveries.

The increased refinery activity pushed utilization of capacity in operation above 90 percent—unusually high for April. As a percentage of reported capacity, utilization, at 86.5 percent, was nearly 2 points higher than last April and 3 points higher than in March.

Inventories

LEAN FOR PRODUCTS, ABOVE AVERAGE FOR CRUDE OIL.

In April, reversing the pattern of the first quarter when total stocks fell 45 million barrels or nearly twice the average seasonal amount, stocks rose 16 million barrels. With the jump in crude imports between March and April exceeding the increase in refinery runs, most of the build occurred in crude oil stocks. Crude oil inventories rose 14 million barrels to a slightly above-average 353 million barrels.

Gasoline inventories typically fall during the spring, and April's 4 million barrel decline was about in line with that month's average. The decline put month-end gasoline stocks at 216 million barrels, which although below the recent-year average of 225 million barrels for the month, were nevertheless 10 million barrels higher than a year ago. Gasoline stocks have on average fallen 13 million barrels during the second quarter in recent years, following builds during the winter as refinery runs rise seasonally to meet winter demand for heating-related products. In fact, gasoline stocks have played a relatively small role in meeting summer gasoline demand, with stock draws averaging less than 1 percent of deliveries in the previous five June-August periods.

Distillate stocks declined slightly during April to 93 million barrels, near the low end of end-of-heating-season levels of the past several years (distillate stocks reached 90 million barrels in March 1988). Since December, when they were at a their highest year-end level in five years, distillate stocks had been drawn down at a rate about 150 thousand B/D more than average, partially displacing the need for refinery distillate production.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of April 30, 1992).

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ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	APRIL			YEAR-TO-DATE		
	1992[1]	1991[2]	%Change	1992[3R]	1991[2]	% Change
Products Supplied:						
Total motor gasoline	7,350	7,137	3.0	7,093	6,909	2.7
Finished leaded motor gasoline/*	118	278	(57.6)	121	272	(55.5)
Finished unleaded motor gasoline/*	7,232	6,859	5.4	6,972	6,637	5.0
Naphtha-jet	139	156	(10.9)	148	168	(11.9)
Kerosine-jet	1,303	1,195	9.0	1,267	1,295	(2.2)
Distillate fuel oil	3,016	2,869	5.1	3,142	3,050	3.0
Residual fuel oil	1,158	1,128	2.7	1,231	1,175	4.8
All other oils[4]	4,119	3,868	6.5	4,154	3,979	4.4
Reclassified[5]	-303	-249	21.7	-281	-230	22.2
Total domestic products supplied	16,782	16,104	4.2	16,754	16,346	2.5
Exports	1,024	737	38.9	1,053	1,074	(2.0)
Total products supplied	17,806	16,841	5.7	17,807	17,420	2.2
Supply:						
Domestic production:						
Crude oil[6]	7,320	7,433	(1.5)	7,297	7,453	(2.1)
Natural gas liquids	1,657	1,656	0.1	1,683	1,662	1.3
Other supply[7]	1,406	1,002	40.3	1,255	1,110	13.1
Total domestic supply	10,383	10,091	2.9	10,235	10,225	0.1
Imports:						
Crude oil, total[8]	6,050	5,523	9.5	5,605	5,359	4.6
Canadian	781	764	2.2	794	779	1.9
Other	5,269	4,759	10.7	4,811	4,580	5.0
Products, total	1,903	1,851	2.8	1,755	1,599	9.8
Residual fuel oil	357	416	(14.2)	367	388	(5.4)
Other	1,546	1,435	7.7	1,388	1,211	14.6
Tctal imports	7,953	7,374	7.9	7,360	6,958	5.8
Total supply	18,336	17,465	5.0	17,595	17,183	2.4
Stock change, all oils	530	624	******	-212	-237	******
Refinery Operations						
Input to crude oil distillation units	13,461	13,279	1.4	13,114	13,113	0.0
Operable capacity	15,564	15,689	(0.8)	15,623	15,673	(0.3)
Refinery utilization (%)[9]	86.5	84.6	2.2	83.9	83.7	0.2
Crude oil runs	13,297	13,037	2.0	12,901	12,907	0.0

Stocks (millions bbls.)	1992		1991[2]	% Change from	
	Apr. 30[10]	Mar. 31/[10]	Apr. 30	Previous Month	Year Ago
Crude oil[8]	353.0	338.9	338.7	4.2	4.2
Unfinished oils	104.9	106.2	112.1	(1.2)	(6.4)
Total motor gasoline/**	216.4	220.0	206.6	(1.6)	4.7
Finished leaded motor gasoline/*	4.0	4.1	7.4	(2.4)	(45.9)
Finished unleaded motor gasoline/*	176.5	177.7	162.8	(0.7)	8.4
Naphtha-jet	5.0	4.5	5.7	11.1	(12.3)
Kerosine-jet	35.5	38.9	38.0	(8.7)	(6.6)
Distillate fuel oil	93.3	94.7	102.2	(1.5)	(8.7)
Residual fuel oil	38.4	41.0	44.7	(6.3)	(14.1)
All other oils	172.1	158.5R	161.1	8.6	6.8
Total all oils	1,018.6	1,002.7R	1,009.1	1.6	0.9

1/ Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-February, DOE, March-April, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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American Petroleum Institute
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Washington, D.C. 20005

Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 16, No. 5

JUNE 17, 1992

MAY 1992

SUMMARY

May's data suggest that the underlying recovery in consumption in recent months continues to be small. Prior to May, year-to-year gains averaging over 3 percent for the first four months, according to the latest estimates, had been implying moderately healthy demand growth. But this had been largely because of even weaker deliveries a year ago; with May's figures, the modestness of any underlying growth became more evident, with deliveries showing only a 1.4 percent year-to-year gain. Compared with two years ago, May's deliveries were still off by 3.5 percent.

For gasoline deliveries, the year-to-year gains of prior months were actually reversed in May. Through April, year-to-date deliveries growth averaging about 2.7 percent had been suggesting unusual strength—at least for a fuel which had averaged a decline of 0.7 percent per year for the prior three years. That strength turned out to be more apparent than real, however, and May's deliveries fell more than 1 percent, year to year. Underlying consumption, however, is still estimated to be growing, but only marginally.

Distillate deliveries, however, continued their strong year-to-year gains, jumping over 5 percent in response to a pickup in truck traffic and unusually cool weather in some regions. For kerosine jet fuel, as well, May's deliveries were up 4.1 percent, roughly in line with growth in commercial air traffic. Residual fuel oil deliveries were off nearly 4 percent.

Meanwhile, domestic crude oil production, falling 3.9 percent or nearly 300 thousand B/D in May, reached its lowest level in more than thirty years. Two-thirds of the year-to-year drop was due to an 11 percent falloff in Alaskan production related in part to scheduled maintenance and other factors. Lower 48 production also declined by about 90 thousand B/D from a year ago.

The decline in domestic supplies, along with marginal increases in demand, imply continued growth in the need for imports. Thus, despite a 7 percent, year-to-year decline in petroleum imports for May and a year-to-date increase of only 2.5 percent, we estimate that, for the first five months of 1992, underlying imports requirements rose close to half a million B/D or about 6 percent. Differences in inventory behavior between this year and last allowed the actual increase in imports to be less than what would have been needed otherwise.

Strength in refinery activity continued in May, with input slightly surpassing year-ago levels. Reflecting, at least directionally, the month's pattern for deliveries, output of gasoline fell by nearly one percent from a year ago while production of other light products rose. Gasoline and distillate inventories remained below average at month-end, however, and stock levels overall reflected an apparent conservatism with respect to holding inventories beyond current needs.

PRODUCT SUPPLIED[1/]

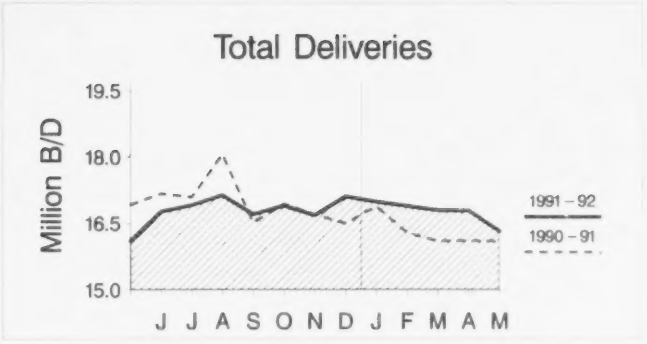
Gasoline

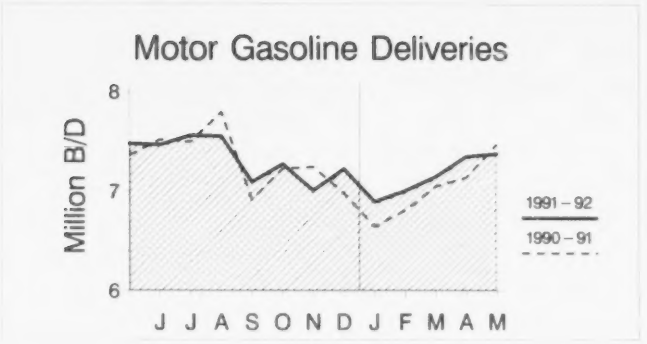
PREVIOUS INCREASES REVERSED IN MAY. Through April, gasoline deliveries had been showing year-to-year gains averaging nearly 3 percent—and this for a fuel that has mustered at best declines of 0.1 to 1.3 percent in the past three years. As we stated previously, the gains in the first quarter were overstating the strength in underlying demand. This was borne out in May's deliveries, which dropped 1.3 percent from a year ago. Looking beyond the fluctuations from one month to the next in observed deliveries, we estimate that the trend in underlying consumption over the past several quarters, if put on an annualized basis, would still be positive but not likely more than 1 percent.

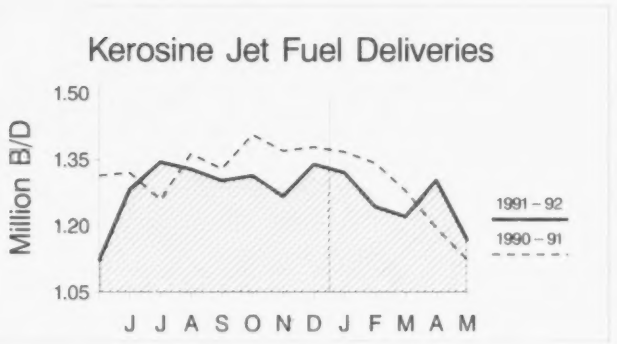
The most recent data on miles traveled have also been falling more into line with the underlying trend we have been estimating. Following unusually strong year-to-year increases of 4 to 5 percent in the first two months of the year, perhaps partly due to unusually warm weather and favorable driving conditions, travel for March rose only 2.6 percent and was essentially in line with what would have been expected based on the trend prior to the winter's unusually large increases. Coupled with continued improvement in overall fleet efficiency of 1 to 2 percent, this is consistent with our estimated trend for consumption.

Retail prices averaged 5 cents higher in May than in April, bringing the increase since March to around 8 cents—about the same size as the decline during the four months prior to that. In addition to typical seasonal patterns, the recent rise coincided with increased crude oil costs averaging roughly 5 cents higher during May than in March and higher manufacturing costs for gasoline

	API ESTIMATES MAY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.3	1.4	16.7	2.8
Crude production[2/]	7.1	(3.9)	7.2	(2.7)
Total imports[3/]	7.9	(7.0)	7.5	2.5
Stocks (million bbl)[3/]	1,032	(2.6)	na	na







meeting recently-tightened, government-mandated summer requirements for vapor pressure. Even so, retail prices still averaged about 3 cents lower than May a year ago.

Distillates

TRANSPORT DEMAND AND WEATHER BOLSTER DELIVERIES. Growing transportation diesel demand continued to contribute to distillate's recovery during May. However, given the month's unseasonably cool weather (and the resulting impact on heating fuel consumption), the 5.3 percent year-to-year increase in distillate deliveries was slightly below what consumption indicators would have suggested.

As was the case in April, weather during May was considerably chillier than a year ago. The number of heating degree days essentially doubled in the New England and Mid-Atlantic states, and was up over 40 percent for the nation as a whole. Granted, even with the cooler weather, heating fuel consumption during the month was likely only about one-fifth its level during January. Still, on a year-to-year basis, the cooler weather contributed to perhaps a 60-80 thousand B/D increase in heating fuel consumption.

As economic activity picks up, transportation distillate demand tends to pick up as well. There is evidence that this was the case during May. Growth in trucking traffic is estimated to have contributed to about a 100 thousand B/D year-to-year increase in highway diesel use, while the 6-7 percent reported increase in rail ton-miles would suggest perhaps a 10-15 thousand B/D increase in underlying consumption in that sector.

Kerosine Jet Fuel

DELIVERIES AND TRAFFIC APPARENTLY RECOVERING. Deliveries of jet kerosine rose, year to year, during May. At 4.1 percent, the growth was comparable to the growth seen in miles flown by commercial airlines. While jet fuel supplied fell in May from the pace set in April, it continued to surpass, on a seasonally-adjusted basis, the levels seen during the first quarter of 1992 and throughout much of 1991. The recent growth, coupled with the surge in airline ticket sales resulting from steep fare discounts offered on travel this summer, tend to support the belief that the recovery in air traffic (and thus jet fuel demand) is continuing.

Depressed air travel in the months following the start of the Gulf War distorts year-to-year comparisons of miles flown. Still, air travel did begin to recover in May a year ago, and with year-to-year growth in miles flown estimated at 4-5 percent for this May, this would bring air traffic to an all-time high for the month.

Many major U.S. airlines slashed their cheapest fares during May by an additional 50 percent for travel this summer. By all accounts, these fare reductions stimulated a dramatic increase in ticket sales, particularly for non-business travel. While there was little or no impact on air travel in May, the fare discounts likely provided further stimulus to a market already showing signs of growth.

Through the first five months of 1992, jet fuel deliveries have been off nearly 1 percent from a year ago, while miles flown have been up about 6 percent. The contrast is noteworthy in that historically, the two growth rates have more closely parallelled each

other. Growth in the fleet's fuel economy is thought to explain, at best, 1-2 percentage points of the gap. It appears that differentials between growth in international versus domestic travel are a more dominant factor. In the year-ago period, the war-related decline in air travel was considerably sharper for international than for domestic flights. This year, the opposite has been true; international miles flown have been up in excess of 20 percent and domestic travel up only 1-2 percent. With some legs of international flights fueled overseas, the observed differences in international versus domestic air traffic growth would tend to make U.S. deliveries decline more than (or increase less than) total miles flown.

Residual Fuel Oil

DELIVERIES SLIP BELOW 1 MILLION B/D.

Contrasting with the 5 percent growth seen during the first third of the year, deliveries of heavy fuel oil declined 3.8 percent, year to year, in May. At 972 thousand B/D, deliveries fell below the million B/D mark for only the third time in the last 45 years. Unseasonably cool weather in the East was a major factor in resid's weakness, cutting into electricity demand from last year's levels. Increasing price competitiveness vis-a-vis natural gas is believed to have kept these declines from being greater.

May has historically been the year's weakest month in terms of resid supplied. This weakness results both from the overall drop in power demand during the month and from seasonal fuel switching from heavy oil to natural gas by utility and industrial consumers. While cool weather this May (and the resulting late-season call on natural gas for space heating purposes) may have lessened the impact of the fuel switching, the overall drop in electricity demand more than offset this. Year-to-year declines in power generation in the East were in the 8-10 percent range during the month.

The non-utility sector continues to show signs of modest recovery, however. The government's index of industrial output rose for the third consecutive month in April (the most recent data), and was up 2.5 percent over the year-ago period. Likewise, the bunker sector appears to have remained resilient. While import and export growth has been weak by standards of recent history, growth has been relatively strong for those commodities comprising the largest share of water-borne tonnage— particularly energy products. The U.S. bunker market has gotten additional support from increasingly competitive prices compared to those in European and Asian markets.

Other Oils

MODEST GROWTH ESTIMATED FOR CONSUMPTION.

Year-to-year increases for "other oils" continued to be relatively strong in May, with a 3.6 percent rise for the month and a roughly 5 percent increase for the year to date. As with total deliveries, weakness in the year-ago period explains a significant portion of the increase, though some underlying growth in demand for "other oils" is also still believed to be present.

This is evident, for example, when the trends in deliveries data are viewed over a shorter term basis. For example, deliveries for most major components of the "other oils" category strengthened between last year's fourth quarter and the first part of this year, after adjusting for normal seasonal patterns. The one notable exception was gasoil for use as petrochemical feedstock, which, due to shifts in relative economics, slipped in favor of other inputs.

SUPPLY [1/]

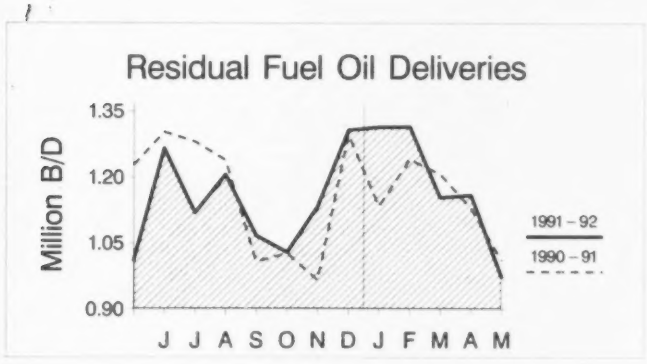
Production

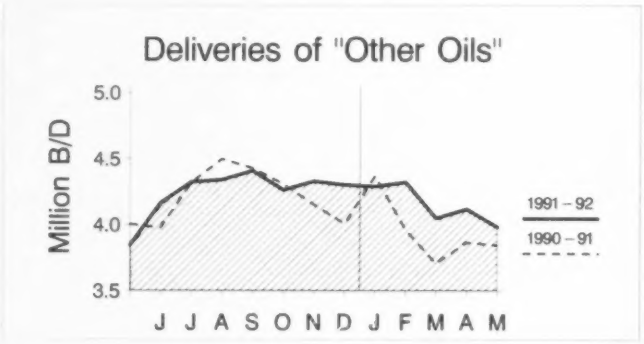
CRUDE FALLS TO A 30 YEAR LOW.

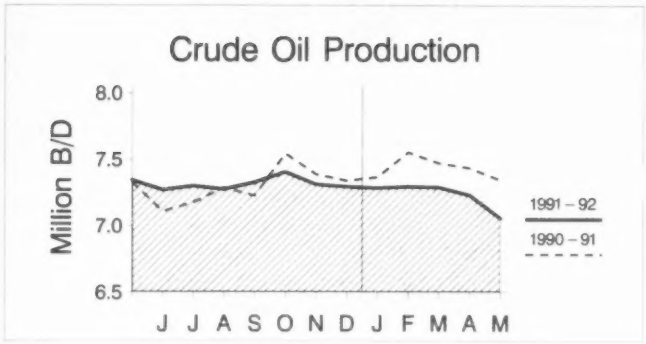
Domestic crude oil production fell in May to its lowest monthly level since 1961. With an 11 percent, 200 thousand B/D drop in Alaskan output, U.S. crude production declined 3.9 percent or nearly 300 thousand B/D from a year ago to 7,055 thousand B/D. Though part of the Alaskan decline was due to scheduled maintenance and other temporary factors, May's U.S. production level, compared with the recent-year peak of just under 9.2 million B/D in February, 1986, nevertheless represented a decline of 23 percent, or over 2 million B/D. Lower 48 production declined as well in May by about 90 thousand B/D from one year earlier.

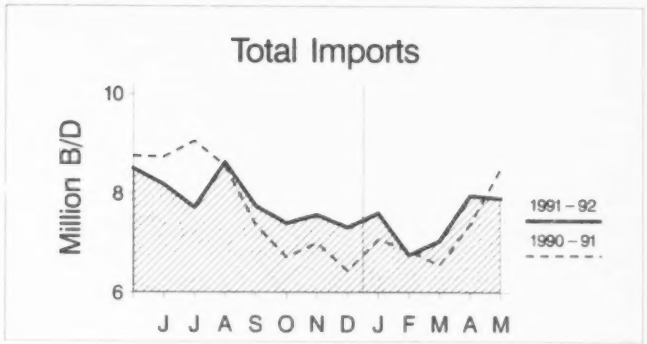
Meanwhile, natural gas liquids (NGLs) production, which constitutes over 16 percent of total domestic petroleum supply, rose slightly in May. While this did little to moderate the decline in domestic supplies overall, with slight year-to-year gains each month in 1992, year-to-date NGL production averaged 1.68 million barrels per day, up 1 percent from the first five months of 1991.

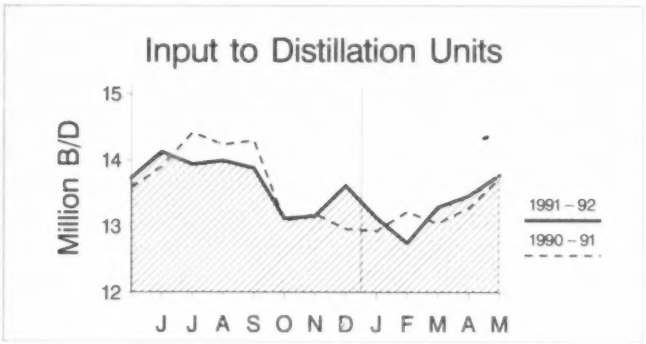
NGL production—that is ethane, propane, butanes and natural gasoline removed from natural gas streams in a field separator or in a gas processing plant—had increased by more than 100 thousand barrels per day in the latter part of 1990 and into 1991 in response to shifting economics. When crude prices rose at the

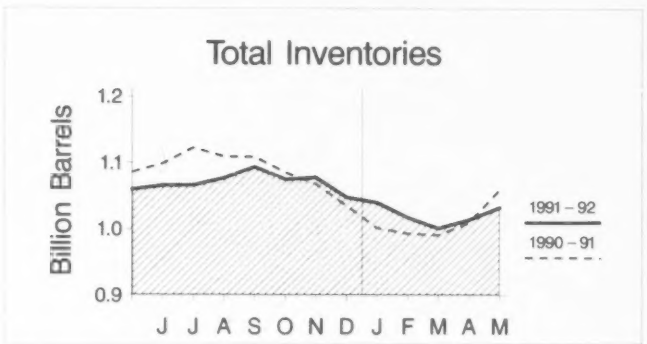












onset of the Persian Gulf War, so did NGL prices, which had been low earlier in 1990. Natural gas prices, however, stayed depressed, and NGLs became more profitable because NGL prices were higher than their extraction costs—including the loss in value of the natural gas due to its lower heat content once the NGLs were removed.

Although markets for liquefied petroleum gases (about two thirds of which are supplied from NGLs) include home heating, gasoline blending, and farm use, petrochemical demand tends to be the most variable because of potential substitution with other petroleum feedstocks. More recent increments in NGL extraction are believed to be the result of continued strength in demand for LPG-derived petrochemical feedstocks and ready availability of natural gas streams. In fact, in 1991, U.S. ethylene production capacity increased 10 percent when three new ethylene plants with a combined capability of running 120,000 B/D of NGL-derived feedstock came on stream on the Gulf Coast.

Imports

IMPORTS DECLINE, BUT TREND IS UP.

Though total imports dropped 7 percent in May over strong year-ago levels, at 7.9 million B/D, they were still at the second-highest level of the past nine months. Crude oil imports, as well, though down about 360 thousand B/D from a year ago, were still up roughly 600 thousand B/D in May from first-quarter levels as refinery runs continued at a brisk pace. Product imports also declined, year to year.

With the growth, however modest, in overall demand and the continued decline in domestic crude oil production, the underlying trend in petroleum imports has necessarily been one of growth, despite the impression that might be given by May's year-to-year decline. For the year to date, though actual imports rose about 180 thousand B/D or 2.5 percent, once adjusted for domestic inventory changes which can temporarily obscure longer term trends in imports, underlying import needs have grown nearly half a million B/D or about 6 percent.

Product imports were down about 240 thousand B/D or about 11 percent from last May. Imports of finished gasoline, though off 130 thousand B/D from last May's surge of over half a million B/D, were still relatively strong at 400 thousand B/D. Imports of kerosine jet fuel, too, have picked up in recent months to a bit over 70 thousand B/D from lows around 30 thousand B/D at the beginning of the year, matching year-ago levels. Distillate imports, however, dropped to 175 thousand B/D, the lowest level since last August.

Refinery Operations

ACTIVITY STILL PICKING UP.

Refinery activity continued to pick up in May from the first quarter's 5-year low. Inputs to distillation units were up fractionally over their levels a year ago, bringing them to their highest level for the month since the late 1970s.

Among major products, jet fuel production was up 3.8 percent from year-ago levels while distillate fuel production was up 0.4 percent. In the case of jet fuel, production was at an all-time high for the month, while distillate production was the highest for any May since 1979. Output of gasoline, in the meantime, fell by nearly one percent from last year, while output of residual fuel oil essentially matched its year-ago level.

Entering May, gasoline stocks were about 10 million barrels higher this year than last, while stocks of jet fuel and distillate were at 6 and 20-plus year lows, respectively, for the month. With apparent consumption of middle distillates growing relative to gasoline, refiners continued to concentrate on production of

the former, both to satisfy current demand and to help replenish inventories.

The increased refinery activity pushed utilization of capacity in operation to about 92.5 percent—unusually high for May, and nearly 2 points higher than a year ago. As a percentage of reported capacity, utilization is estimated at 88.5 percent for the month.

Inventories

CRUDE, PRODUCTS AT BELOW-AVERAGE STOCK LEVELS. Overall, May's data suggested conservatism in holding inventories. Total stocks rose 19 million barrels during May, about 10 million barrels less than the historical average. Despite higher crude oil imports compared with a few months ago, crude stocks ended the month at 346 million barrels—roughly 8 million barrels lower than average for the month, as moderately strong refinery runs drew down crude stocks by 7 million barrels.

Gasoline stocks were essentially unchanged during May, and though ending stocks were up 6 million barrels from a year ago, at 216 million barrels they were 6 million barrels lower than average for the end of May. Distillate stocks, too, rose less than seasonally over the month to 94 million barrels. They ended the month about 9 million barrels below the recent-year average for the month—likely held down in part by unanticipated demand springing from colder-than-normal weather in some regions.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 569 million barrels as of May 31, 1992).

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ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	MAY			YEAR-TO-DATE		
	1992[1]	1991[2]	% Change	1992[3R]	1991[2]	% Change
Products Supplied:						
Total motor gasoline	7,379	7,475	(1.3)	7,155	7,025	1.9
Finished leaded motor gasoline/*	126	280	(55.0)	128	274	(53.3)
Finished unleaded motor gasoline/*	7,253	7,195	0.8	7,027	6,751	4.1
Naphtha-jet	153	191	(19.9)	148	172	(14.0)
Kerosine-jet	1,169	1,123	4.1	1,251	1,260	(0.7)
Distillate fuel oil	2,881	2,735	5.3	3,107	2,986	4.1
Residual fuel oil	972	1,010	(3.8)	1,180	1,141	3.4
All other oils[4]	3,982	3,843	3.6	4,151	3,951	5.1
Reclassified[5]	-219	-279	(21.5)	-243	-240	1.3
Total domestic products supplied	16,317	16,098	1.4	16,749	16,295	2.8
Exports	972	1,149	(15.4)	982	1,090	(9.9)
Total products supplied	17,289	17,247	0.2	17,731	17,385	2.0
Supply:						
Domestic production:						
Crude oil[6]	7,055	7,339	(3.9)	7,230	7,429	(2.7)
Natural gas liquids	1,670	1,647	1.4	1,680	1,659	1.3
Other supply[7]	1,261	1,390	(9.3)	1,288	1,167	10.4
Total domestic supply	9,986	10,376	(3.8)	10,198	10,255	(0.6)
Imports:						
Crude oil, total[8]	6,030	6,387	(5.6)	5,669	5,570	1.8
Canadian	736	752	(2.1)	792	774	2.3
Other	5,294	5,635	(6.1)	4,877	4,796	1.7
Products, total	1,870	2,109	(11.3)	1,784	1,704	4.7
Residual fuel oil	348	420	(17.1)	386	394	(2.0)
Other	1,522	1,689	(9.9)	1,398	1,310	6.7
Total imports	7,900	8,496	(7.0)	7,453	7,274	2.5
Total supply	17,886	18,872	(5.2)	17,651	17,529	0.7
Stock change, all oils	597	1,625	******	-80	144	******
Refinery Operations						
Input to crude oil distillation units	13,774	13,728	0.3	13,286	13,240	0.3
Operable capacity	15,564	15,703	(0.9)	15,604	15,679	(0.5)
Refinery utilization (%)[9]	88.5	87.4	1.3	85.1	84.4	0.8
Crude oil runs	13,616	13,533	0.6	13,087	13,036	0.4

Stocks (millions bbls.)	1992		1991[2]	% Change from	
	May 31[10]	Apr.30[10]	May 31	Previous month	Year Ago
Crude oil[8]	345.6	353.0	358.5	(2.1)	(3.6)
Unfinished oils	104.4	104.9	115.6	(0.5)	(9.7)
Total motor gasoline/**	215.9	216.4	209.5	(0.2)	3.1
Finished leaded motor gasoline/*	3.8	4.0	7.2	(5.0)	(47.2)
Finished unleaded motor gasoline/*	176.2	176.5	164.8	(0.2)	6.9
Naphtha-jet	6.0	5.0	5.7	20.0	5.3
Kerosine-jet	39.0	35.5	41.3	9.9	(5.6)
Distillate fuel oil	94.3	93.3	107.0	1.1	(11.9)
Residual fuel oil	40.7	38.4	45.8	6.0	(11.1)
All other oils	186.3	167.2R	176.1	11.4	5.8
Total all oils	1,032.2	1,013.7R	1,059.5	1.8	(2.6)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-March, DOE, April-May, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005

Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 16, No. 6

JULY 15, 1992

JUNE 1992

SUMMARY

In the first half of 1992—for the first time in three years for a similar six-month period—petroleum deliveries showed a measurable increase. The 1.6 percent, 260 thousand B/D rise versus a year ago, however, represented more of a partial recovery from even lower levels a year ago than out-of-the-ordinary strength this year. Even then, the first half increase was less than many analysts had earlier expected, and many have revised downwards their outlook for the remainder of the year.

While the economy has been inching ahead over the past year or so, it has not really recovered much more than the ground lost earlier—reaching a level perhaps only about half a percent higher than two years ago. But petroleum deliveries have not even done this well, and for the first half were still down 1.8 percent compared with two years ago and 3.5 percent from three years ago. That petroleum deliveries grew less than the economy is hardly unique, but rather continues a long-term pattern. In fact, in nine out of the ten past years, petroleum demand growth has lagged behind that of the economy.

The biggest gain for the first half was for distillate fuel oil deliveries, which rose 3.6 percent due to increases in transportation usage. Gasoline deliveries rose 1.4 percent, though by the end of the period gains had turned into declines. Kerosine jet fuel deliveries, dropping 1.3 percent for the first half, nevertheless managed a 3.2 percent gain for the second quarter. Residual fuel oil deliveries continued their shrinkage of the past several years, dropping 3.5 percent.

On a shorter-term basis, June's total deliveries were unusually low for most products compared with recent trends. Total deliveries were off 2.4 percent and dragged the quarter as a whole down to only an 0.7 percent rise. It is true that year-to-year gains would have been expected to diminish in the past month or two because of comparison against year-ago deliveries which were strengthening from lower levels early in 1991 (see graph on following page). But recent trends still would have suggested a slight year-to-year gain, rather than a decline, for June.

Despite nearly flat imports in the first half versus a year ago, due in part to differences in the behavior of inventories and exports, declines in domestic crude oil production imply continued growth in the underlying trend of petroleum imports. The first half's drop in domestic crude oil production of 3.3 percent or 250 thousand B/D from a year ago put domestic output at 7.24 million B/D—the lowest half-year level in more than 30 years. The lower 48 contributed two-thirds of the drop, but Alaskan output dropped as well, with output from other fields insufficient to compensate for declining production from Prudhoe Bay, the country's largest.

Although refinery activity was relatively strong during more recent months, input to distillation units for the first six months as a whole averaged only 0.4 percent higher than a year ago. By June, however, utilization of capacity in actual operation had reached roughly 96 percent, among the highest observed rates of the past ten years.

Conservatism in inventory-holding continued to be apparent in June, particularly for crude oil. Total inventories, though rising about 45 million barrels over the second quarter, still ended the period 20 million barrels below a year ago and 10 million barrels below average for the end of June. Crude stocks fell 17 million barrels to 328 million barrels, about 20 million barrels less than average for June. Gasoline stocks, though, ended the month 8 million barrels ahead of last year and distillate stocks, though 10 million barrels down from a year ago, were only moderately below average for June.

PRODUCT SUPPLIED[1]

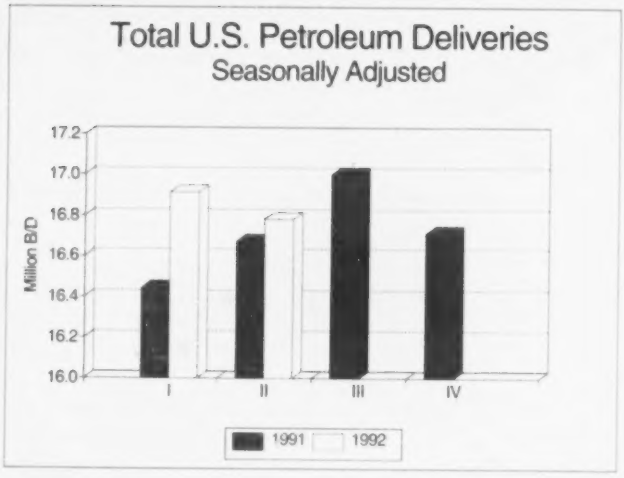
Gasoline

RECENT WEAKNESS MASKED BY FIRST HALF'S GROWTH.

After three years of flat-to-declining performance, gasoline deliveries in 1992's first half showed an increase—though of only 1.4 percent. The increase was barely enough to bring deliveries back to their level of two years ago for the same period. Furthermore, the year-to-year increase weakened to only 0.2 percent in the second quarter, in part because of June's marginal decline and in part because of comparison against improving deliveries a year ago. Underlying growth in demand is estimated to be modest.

The pattern for deliveries reflected that of highway traffic, whose growth has picked up in the first six months of this year compared with weaker growth in the past year or two. The first

	API ESTIMATES JUNE		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.5	(2.4)	16.7	1.6
Crude production[p]	7.2	(2.3)	7.2	(3.3)
Total imports[p]	7.6	(7.5)	7.5	0.4
Stocks (million bbl)[p]	1,046	(1.8)	na	na



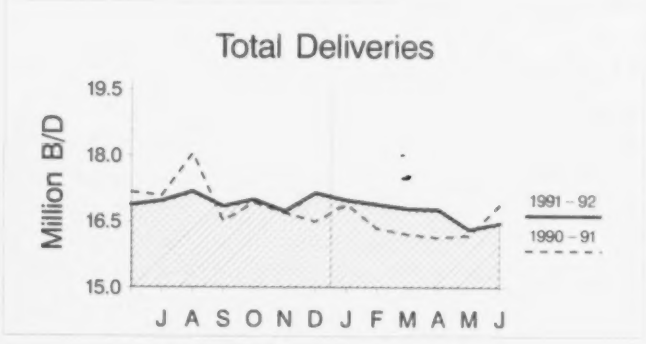
half's growth in travel still fell short, however, of that of the latter half of the 1980s, when it had been growing at about 4 percent per year. This had slowed to 2.4 percent in 1990 and 1 percent last year. With continued improvement in the fuel efficiency of the fleet, that had not been enough to keep gasoline demand growing, and as a result, gasoline deliveries, which had been rising an average of 1.8 percent per year, leveled off in 1990 and fell in 1991. Travel in this year's first half is estimated to have risen by about 3.5 percent, perhaps partly due to unusually mild winter weather, and the second quarter's growth rate, along with that of gasoline demand, we estimate eroded from the first quarter's level.

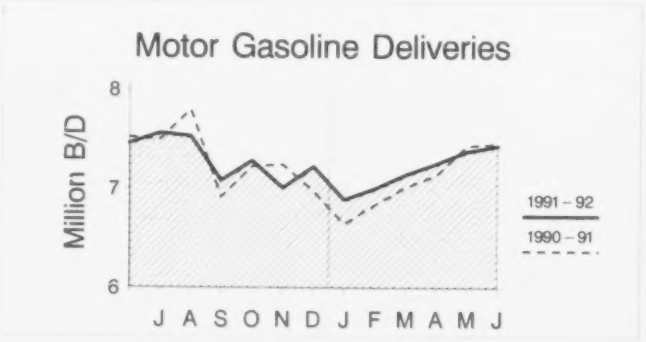
Retail prices rose another 5 cents per gallon, on average, in June versus May. This brought the increase since March to about 12 cents—coinciding with increases in crude oil costs, seasonal demand, and tighter environmental requirements for summer gasoline than in the past. Versus a year ago, prices averaged about 1 cent higher. For the sake of historical comparison, retail prices for unleaded regular, if put in today's dollars, have ranged from about $1.05 to $2.25 over the past twelve years on an inflation-adjusted basis. June's estimated average of $1.17 falls towards the lower end of that range.

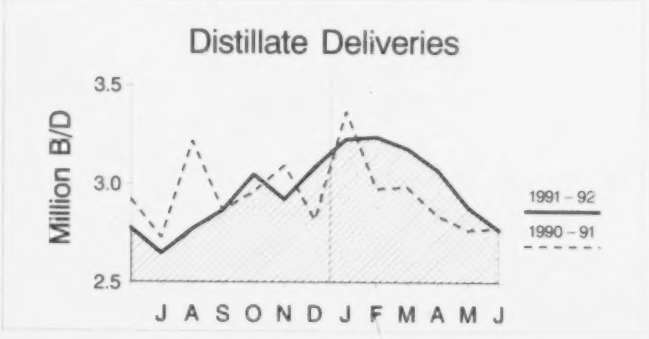
Distillates

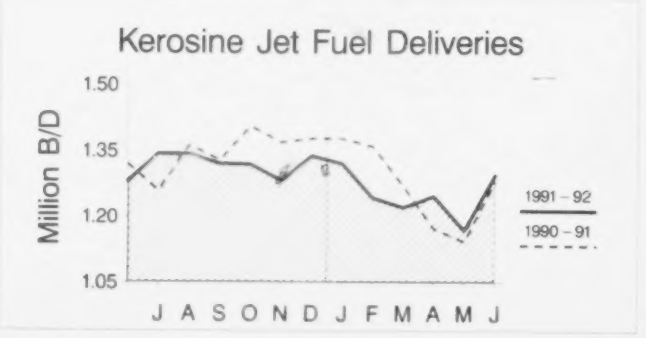
TRANSPORTATION DEMAND STILL GROWING. Increases in transportation demand fueled much of the 3.6 percent growth in distillate deliveries seen during the year's first half, although heating fuel demand, spurred by cooler temperatures this year than last, also contributed to overall growth. Despite falling fractionally year to year in June, deliveries were up 4 percent for the second quarter, building upon the 3.2 percent growth seen over the year's first three months. The increase over the April-June period was roughly in line with the growth suggested by underlying consumption indicators. However, despite the year-to-year increase, deliveries during the second quarter were off nearly 2 percent from the same period two years ago.

Led by growth in the on-highway sector, transportation distillate demand, by our estimates, continued to grow in June. Trucking industry data on ton-miles have continued to show year-to-year increases in recent months. Based on the recent trend, we estimate that highway diesel consumption (which makes up roughly 60 percent of summertime distillate deliveries) was up about 5 percent, or 90 thousand B/D, year to year, in June. Such an increase is comparable to what we have been estimating for the quarter as a whole. Rail demand, meanwhile, which had been growing at a similar rate in recent months, declined by an estimated 2-3 percent during June. The decline, however, resulted principally from a short-lived rail strike late in the month.









Kerosine Jet Fuel

DELIVERIES GROW WITH AIR TRAFFIC. Although down 1.2 percent, year to year, during the first half, jet fuel deliveries, in conjunction with increases in air travel, have been showing growth in more recent months. The second quarter's 3.2 percent year-to-year increase contrasted with the 4.4 percent decline seen during the first quarter. And while jet kerosine deliveries rose a more modest 1.2 percent in June, consumption indicators point to a recovery in deliveries, which if anything, has strengthened.

The jet fuel recovery actually dates back to May 1991; however, it wasn't until April of this year that the ground lost to the recession and the war had been retraced. Miles travelled by commercial airlines have continued to increase in the months since, and the steep air fare reductions offered by airlines during May translated into more robust growth in commercial air travel during June. Most major airlines reported significant upticks in passenger travel—particularly leisure travel.

Unlike the pattern of recent prior months, June's growth came on domestic as well as international routes. Other things equal, this would tend to have had a more direct impact on domestic jet fuel deliveries. However, with load factors down about 2 points from a year ago during April and May, air carriers were positioned to absorb many of the additional passengers by filling otherwise empty seats. In fact, some carriers were able to keep the number of additional flights to a minimum by filling planes at record rates during the month. Still, based on preliminary airline data, growth in miles travelled did pick up in June versus prior months. Averaging about 5 percent, year to year, over the first five months of the year, we estimate miles flown grew 6-8 percent, year to year, during June. Such growth would have brought traffic to an all-time high for the month.

That the rate of growth in jet fuel deliveries throughout the first half consistently trailed the rate of growth in miles flown is thought to have resulted, in part, from the fact that those airlines exiting the industry over the past 18 months tended to fly older, less fuel-efficient aircraft. Their absence likely boosted overall efficiency of the remaining fleet. Also contributing to the divergence has been the fact that traffic growth (even with June's increase in domestic travel) has been more pronounced on international routes, which are in some cases, refueled abroad.

Residual Fuel Oil

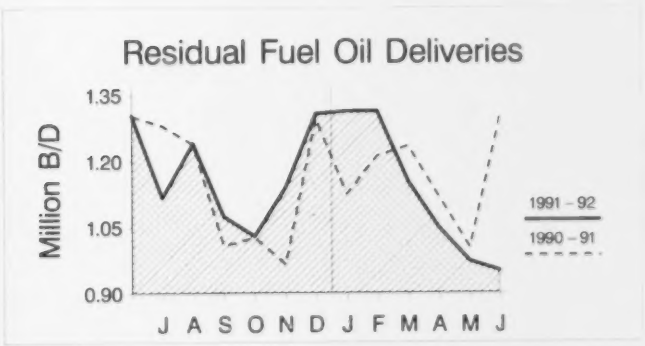
SECOND QUARTER AT 40-YEAR LOW. The first half's 3.5 percent drop in residual fuel deliveries hides the sharp contrast in growth between the first two quarters. After growing nearly 6 percent, year to year, during the first quarter, deliveries fell 13 percent during the second. The ominous-looking second quarter drop, however, while explainable in part by moderate weather and the resulting decline in power generation, is largely the result of above-trend deliveries in June a year ago. Adjusting for these factors, we estimate the underlying rate of decline in consumption to continue in the 5 to 10 percent range. Nonetheless, it is true that deliveries for the quarter as a whole fell below the million B/D mark for the first time in over 40 years.

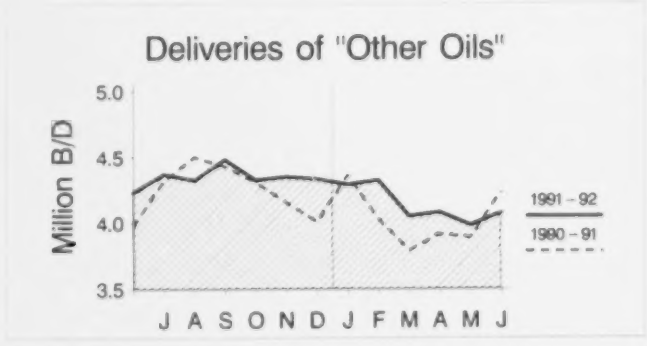
Thanks in part to moderate weather, power generation thus far in 1992 has been weak—down, year to year, in each of the first two quarters in those regions of country most reliant on residual fuel. Temperatures remained uncharacteristically cool throughout nearly every region of the country during June. As a result, there were year-to-year declines in electricity output of 7-8 percent in the East and 5-6 percent for the nation as a whole. Because resid-fired capacity often serves intermediate and peak generating needs, both its level and its share of all generation tend to rise and fall with demand. Thus, utility resid consumption is thought to have declined by more than the drop in electricity output during June — a decline exacerbated by more plentiful gas supplies from Canada this year.

In industrial markets, which account for about 12 percent of resid use, indicators of resid demand have been less bleak. The government reported that industrial output was up in May for the fourth consecutive month, with year-to-year increase put at 2.2 percent. And in bunker markets, which account for about a third of resid use, indicators of waterborne trade have remained relatively buoyant, although waterborne energy imports have fallen slightly in the most recent months.

Other Oils

FIRST-HALF GROWTH STRONGER THAN FOR TOTAL DELIVERIES. As has been the case for the past two years, first-half deliveries of "other oils" were stronger than deliveries as a





whole, rising 2.4 percent for the first six months. Deliveries of "other oils" had fallen by less than total deliveries in 1990 and actually rose nearly 2 percent last year despite another decline for total deliveries.

Much of the recent year-to-year increases for the "other oils" group have reflected recovery for individual products from earlier recession-related declines. Over a longer period, however, growth in petrochemical feedstocks has been the primary force behind demand growth for "other oils". We estimate, for example, that deliveries of the major petrochemical feedstocks have grown roughly 20 percent over the last five years. The remainder of the "other oils" category is estimated to have barely been flat over the same period.

SUPPLY [1/]

Production

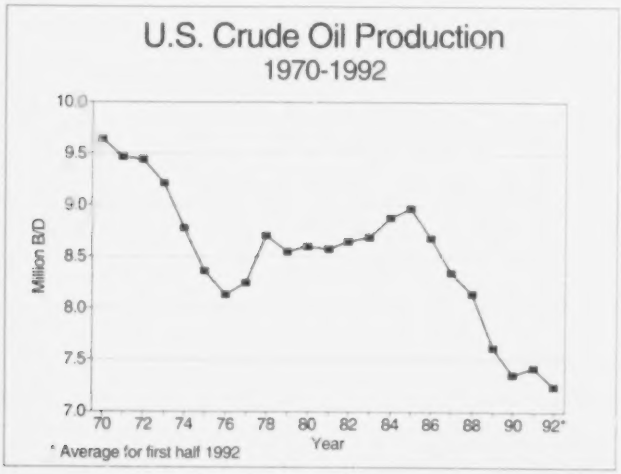
QUARTER-MILLION B/D DROPOFF DURING FIRST HALF.

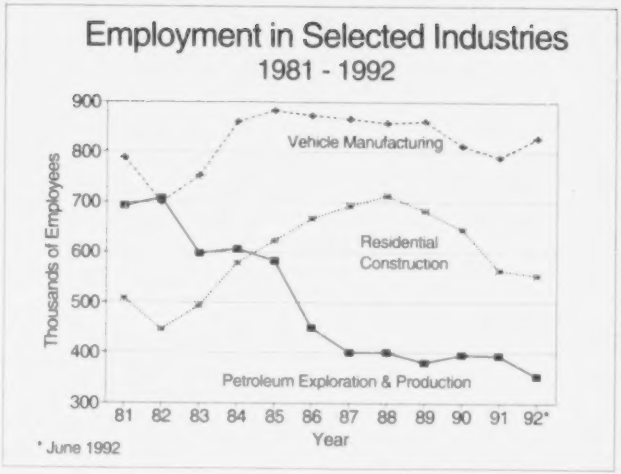
Domestic crude oil production in the first half of 1992 fell 3.3 percent or 250 thousand B/D percent versus a year ago, to 7.24 million B/D—the lowest half-year level since 1961. Declines in the lower 48 contributed two thirds of the drop.

Alaskan production, after a small increase last year, resumed the decline that has been taking place since its peak in 1987. In that year, production from Prudhoe Bay, which had begun producing ten years earlier, after discovery nearly ten years before that, began to drop. From its peak of 1.6 million B/D, and even with continued maintenance and facilities enhancements, Prudhoe Bay production has fallen nearly 20 percent.

Output from smaller fields which came on stream in more recent years have helped to make up part of the shortfall, but with Prudhoe alone accounting for roughly 70 percent of Alaskan production and roughly a sixth of all U.S. crude oil production, its decline has had a significant part in the decline of U.S. production overall. The next largest Alaskan field, Kuparuk, has accounted for about 300 thousand B/D compared with 1.3 million B/D from Prudhoe, while Endicott and others have been contributing about 200 thousand B/D.

With the decline in exploration and production activity over the past decade has come a substantial drop in upstream employment. According to Bureau of Labor Statistics figures, upstream employment has dropped by 400,000 jobs to only half its monthly peak of ten years ago. Mean[while] employment in vehicle manufacturing, for example, dropped about 70,000 from its monthly peak in late 1985. Versus ten years ago it has actually gained, on net, more than 100,000 jobs. In residential construction, though employment has dropped by roughly 200,000 since its monthly peak in 1988, compared against ten years ago the industry has experienced a net gain of more than 100,000 jobs. The accompanying graph compares the drop in oil industry upstream employment with selected other industries on an annual basis.





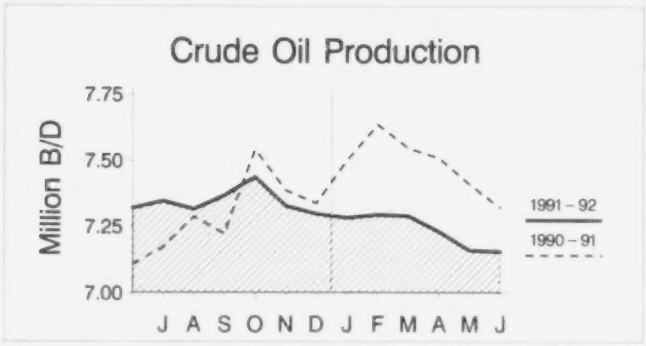
Imports

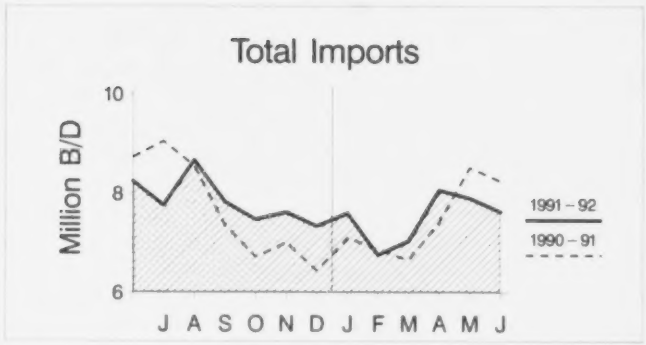
FIRST HALF FLAT BUT UNDERLYING DEPENDENCY GROWS.

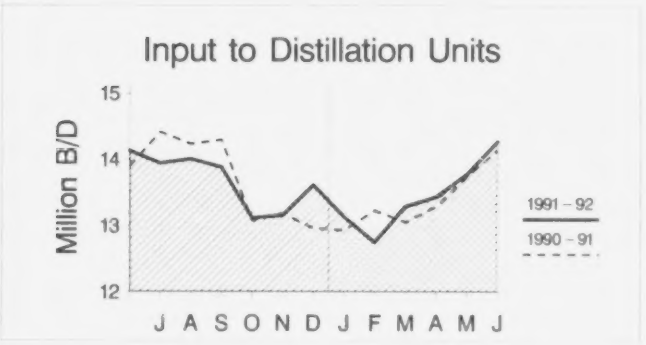
Total petroleum imports for the first half—despite the decline in domestic production and the increase in product deliveries— were nearly flat versus a year ago. The illusion of stable imports was possible in part because of an inventory build in the first half of last year that pushed imports up, coupled with a small drawdown in this year's first half. A dropoff in exports from higher than typical levels last year also helped to temporarily moderate the growth in imports. Total imports as a share of domestic deliveries amounted to 44.9 percent for the six-month period.

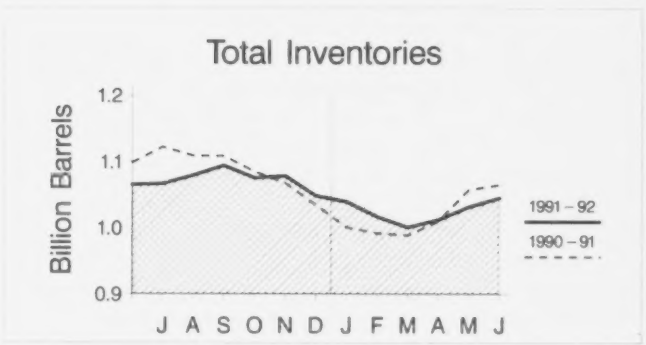
Crude oil imports, though nearly equal to year-ago levels for the half, dipped slightly in the past couple of months from 6.1 million B/D in April to less than 5.9 million B/D in June. Product imports, too, were nearly flat for the first half at 1.8 million B/D.

Gasoline imports have been relatively strong of late compared with earlier in the year, running over 400 thousand B/D in the past three months. This was still slightly below the even-stronger year-ago period, however. Distillate imports, which had dipped below 200 thousand B/D in May, rose in June to about 250 thousand B/D from 210 a year ago and were at the higher end of the range for monthly imports for the past two years. Resid imports, in the face of declining deliveries, reached a new recent-year low of 262 thousand B/D, only half the year-ago level.









Refinery Operations

UTILIZATION IN JUNE APPROACHES 10-YEAR HIGH.

Though for the first six months as a whole, input to distillation units managed only an 0.4 percent year-to-year increase, refinery activity was relatively strong during the second quarter. June's inputs, at nearly 14.3 million B/D, were at the highest level for any month in more than a year and a half, and the month's utilization of capacity in actual operation, at roughly 96 percent, was among the highest observed in the past ten years. On the basis of reported capacity, utilization for June worked out to 91.7 percent, up roughly 2 percentage points from a year ago.

Yields continued to favor distillate over gasoline production in June, as they have throughout the second quarter. Gasoline output for June was off 1.2 percent and distillate output, up 2.8 percent versus a year ago. Output of kerosine jet fuel dropped 3.1 percent for the month.

Inventories

CRUDE DRAWS, PRODUCTS BUILD IN JUNE.

Total stocks, which have been rising throughout the second quarter, rose another 14 million barrels during June to 1,046 million barrels. Though this brought the build for the second quarter to about 45 million barrels, inventories were still 20 million barrels below a year ago and 10 million barrels below average for the end of June.

With strong refinery runs and a slackening in crude oil imports, crude stocks fell 17 million barrels during the month to 328 million barrels—a level about 20 million barrels less than average for the month.

Gasoline stocks, after two months at the 216-217 million barrel level, rose 7 million barrels to 223 million barrels, 8 million barrels ahead of a year ago. Distillate stocks rose 9 million barrels for June, not much more than normal. At 103 million barrels, they were 10 million barrels lower than a year ago and continued to run slightly below average for this time of year.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 570 million barrels as of June 30, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	JUNE			YEAR-TO-DATE		
	1992[1]	1991[2]	% Change	1992[3R]	1991[2]	% Change
Products Supplied:						
Total motor gasoline	7,437	7,456	(0.3)	7,186	7,090	1.4
Finished leaded motor gasoline/*	126	272	(53.7)	128	273	(53.1)
Finished unleaded motor gasoline/*	7,311	7,184	1.8	7,058	6,817	3.5
Naphtha-jet	158	186	(15.1)	152	175	(13.1)
Kerosine-jet	1,295	1,280	1.2	1,249	1,266	(1.3)
Distillate fuel oil	2,766	2,775	(0.3)	3,059	2,952	3.6
Residual fuel oil	950	1,303	(27.1)	1,124	1,165	(3.5)
All other oils[4]	4,075	4,234	(3.8)	4,132	4,036	2.4
Reclassified[5]	-214	-356	(39.9)	-201	-242	(16.9)
Total domestic products supplied	16,467	16,878	(2.4)	16,701	16,442	1.6
Exports	925	921	0.4	958	1,062	(9.8)
Total products supplied	17,392	17,799	(2.3)	17,659	17,504	0.9
Supply:						
Domestic production:						
Crude oil[6]	7,155	7,320	(2.3)	7,236	7,485	(3.3)
Natural gas liquids	1,680	1,627	3.3	1,688	1,662	1.6
Other supply[7]	1,386	854	62.3	1,220	1,052	16.0
Total domestic supply	10,221	9,801	4.3	10,144	10,199	(0.5)
Imports:						
Crude oil, total[8]	5,876	6,334	(7.2)	5,714	5,696	0.3
Canadian	764	705	8.4	796	763	4.3
Other	5,112	5,629	(9.2)	4,918	4,933	(0.3)
Products, total	1,749	1,911	(8.5)	1,786	1,775	0.6
Residual fuel oil	262	512	(48.8)	363	415	(12.5)
Other	1,487	1,399	6.3	1,423	1,360	4.6
Total imports	7,625	8,245	(7.5)	7,500	7,471	0.4
Total supply	17,846	18,046	(1.1)	17,644	17,670	(0.1)
Stock change, all oils	454	247	******	-15	166	******
Refinery Operations						
Input to crude oil distillation units	14,272	14,128	1.0	13,444	13,394	0.4
Operable capacity	15,564	15,726	(1.0)	15,617	15,695	(0.5)
Refinery utilization (%)[9]	91.7	89.8	2.1	86.1	85.3	0.9
Crude oil runs	14,043	13,918	0.9	13,237	13,185	0.4

Stocks (millions bbls.)	1992		1991[2]	% Change from	
	June 30[10]	May 31[10]	June 30	Previous month	Year Ago
Crude oil[8]	328.2	345.6	346.8	(5.0)	(5.4)
Unfinished oils	103.9	104.4	111.0	(0.5)	(6.4)
Total motor gasoline/**	222.9	215.9	214.5	3.2	3.9
Finished leaded motor gasoline/*	3.8	3.8	7.4	0.0	(48.6)
Finished unleaded motor gasoline/*	181.4	176.2	169.6	3.0	7.0
Naphtha-jet	5.7	6.0	5.5	(5.0)	3.6
Kerosine-jet	39.5	39.0	42.9	1.3	(7.9)
Distillate fuel oil	103.4	94.3	113.7	9.7	(9.1)
Residual fuel oil	39.4	40.7	43.7	(3.2)	(9.8)
All other oils	202.6	186.1R	186.9	8.9	8.4
Total all oils	1,045.6	1,032.0R	1,065.0	1.3	(1.8)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-April, DOE, May-June, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	2ND QUARTER		
	1992[1]	1991[2]	%Change
Products Supplied:			
Total motor gasoline	7,357	7,344	0.2
Finished leaded motor gasoline/*	123	275	(55.3)
Finished unleaded motor gasoline/*	7,234	7,069	2.3
Naphtha-jet	153	178	(14.0)
Kerosine-jet	1,236	1,198	3.2
Distillate fuel oil	2,905	2,793	4.0
Residual fuel oil	990	1,140	(13.2)
All other oils[3]	4,045	4,011	0.8
Reclassified[4]	-170	-264	(35.6)
Total domestic products supplied	16,516	16,400	0.7
Exports	945	938	0.7
Total products supplied	17,461	17,338	0.7
Supply:			
Domestic production:			
Crude oil[5]	7,182	7,412	(3.1)
Natural gas liquids	1,684	1,650	2.1
Other supply[6]	1,211	1,045	15.9
Total domestic supply	10,077	10,107	(0.3)
Imports:			
Crude oil, total[7]	6,007	6,079	(1.2)
Canadian	777	742	4.7
Other	5,230	5,337	(2.0)
Products, total	1,858	1,987	(6.5)
Residual fuel oil	318	450	(29.3)
Other	1,540	1,537	0.2
Total imports	7,865	8,066	(2.5)
Total supply	17,942	18,173	(1.3)
Stock change, all oils	481	835	*****
Refinery Operations			
Input to crude oil distillation units	13,825	13,720	0.8
Operable capacity	15,603	15,711	(0.7)
Refinery utilization (%)[8]	88.6	87.3	1.5
Crude oil runs	13,637	13,500	1.0

Stocks (millions bbls.)	2ND QUARTER		
	1992[9]	1991[2]	%Change
Crude oil[7]	328.2	346.8	(5.4)
Unfinished oils	103.9	111.0	(6.4)
Total motor gasoline/**	222.9	214.5	3.9
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/1 Source: U.S. Department of Energy, April: May-June, API.
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/3 Includes crude losses.
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/5 API estimate; includes lease condensate.
/6 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/7 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/8 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/9 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 16, No. 7

AUGUST 19, 1992

JULY 1992

SUMMARY

June's weak demand for petroleum carried forward into July, with total deliveries last month dropping 1.3 percent versus one year earlier. In fact, July's deliveries, as with June, made an even poorer showing than might have been expected based on the trends of earlier this year. This suggests that petroleum deliveries, along with the economy as a whole, have been suffering the consequences of a lethargic recovery.

The weakest performers among the major products were gasoline and residual fuel oil, which dropped 0.8 and nearly 18 percent, respectively, from last July. Deliveries of "other oils", with a 3.8 percent year-to-year drop, also contributed significantly to the weakness in total deliveries. Somewhat brighter results were apparent for distillate fuel oil and kerosine jet fuel, which rose 3.8 percent and 3.3 percent, respectively, over year-ago levels due to higher truck traffic and continued growth in air travel.

Meanwhile, total petroleum imports surpassed 8.5 million B/D in July for the first time in nearly a year—and amounted to over 50 percent of deliveries for the month. Though we estimate that the underlying trend in import reliance is in the neighborhood of 45-46 percent, the highly variable nature of imports and deliveries means that the odds of exceeding 50 percent in a given month increase as the underlying trend in import reliance grows. Total imports as a percent of domestic deliveries on a monthly basis exceeded the half-way mark only three times in the 1970s—but this is the eighth time in the last three years that the ratio has exceeded 50 percent.

With relatively static demand, the main factor behind the trend in imports requirements has been the decline in domestic crude oil production, which dropped another 2.7 percent or 200 thousand B/D in July, year to year. A larger-than-typical, 6.6 percent decline in Alaska was partly offset by an smaller-than-average, 1.5 percent decline for the lower 48.

At refineries, activity continued at a relatively strong pace in July, with input to distillation units in the past two months at the highest rates in nearly two years. Thus, despite the surge in crude oil imports, crude oil stocks rose a slight 2 million barrels, remaining on the lower end of the range of recent experience.

Inventories as a whole, however, have been building steadily over the past two months, and ended July at fairly typical levels for midsummer. Gasoline stocks fell 5 million barrels for the month, but at 218 million barrels, were still at normal levels at month-end. Distillate stocks, on the other hand, despite a 12 million barrel build, were at the low end of the range compared with recent Julys.

PRODUCT SUPPLIED [1]

Gasoline

DELIVERIES DROP FOR THIRD MONTH. Weak gasoline deliveries continued in July, dropping 0.8 percent—the third year-to-year loss in a row. Though, for the year to date, deliveries still show an increase marginally under 1 percent, most of this was in the first quarter, the result of even weaker deliveries a year ago and better-than-average winter driving conditions. Over the past three months, gasoline deliveries have averaged about a 1 percent decline.

Travel data, at least so far as they are available, have shown a similar pattern. Thus, growth in miles traveled early in the year had been reported at 4-5 percent, year to year, but dwindled to about 3 percent by May. Despite slowing from somewhat anomalous growth rates earlier this year, we estimate that, on a month-to-month basis, travel is still rising at a 2-3 percent annual rate.

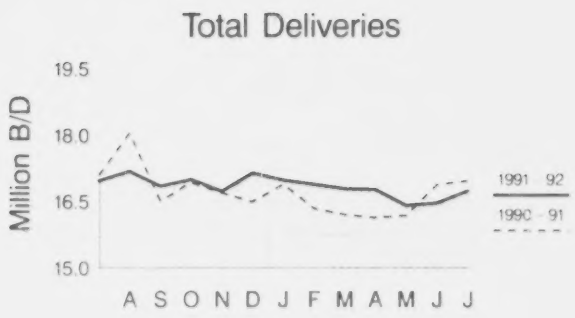
Retail gasoline prices for the month as a whole averaged about the same in July as in June, but at month-end they had dropped about 1.5 cents per gallon from the end of June. Over the spring, prices had risen about 12 cents per gallon as a result of rising crude costs, seasonal demand, and more stringent vapor pressure requirements for summer gasoline than in the past.

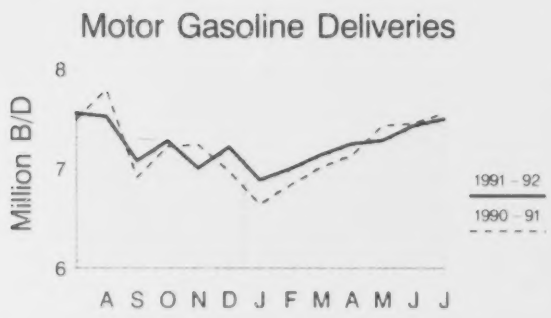
Distillates

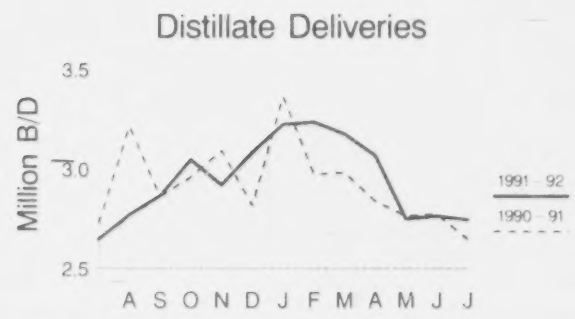
TRANSPORT USE CONTRIBUTES TO GROWTH. After two months of moderate year-to-year declines, distillate deliveries bounced back in July with an increase of 3.8 percent. Commercial transportation continues to be the major factor contributing to distillate's growth. Although the economic recovery as a whole has been lackluster so far, truck traffic has continued to show sizable gains over year-ago levels and rail ton-miles were up roughly 3 percent in July.

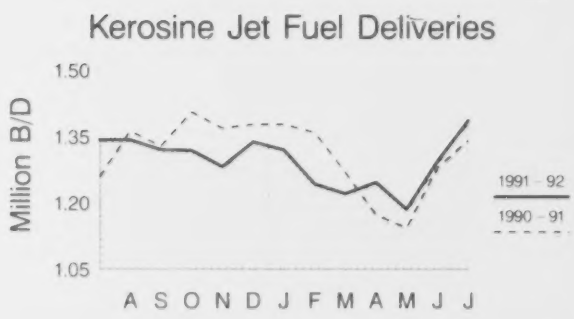
API ESTIMATES

	JULY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	(1.3)	16.7	1.2
Crude production[2]	7.1	(2.7)	7.2	(3.2)
Total imports[2]	8.5	9.8	7.6	1.5
Stocks (million bbl)[2]	1,075	0.8	na	na









Of the major products, distillate fuel oil has been the only one to show much real growth for the first seven months of 1992 as a whole. Though kerosine jet fuel deliveries have been strengthening in recent months, distillate fuel oil, with its 3.0 percent growth so far in 1992, has been the largest single contributor to overall deliveries' 1.2 percent increase for the year to date.

Kerosine Jet Fuel

STRENGTH IN AIR TRAVEL BOOSTS CONSUMPTION.

In conjunction with air travel which is believed to have eclipsed its previous high for the month of July, deliveries of jet kerosine also reached an all-time high for the month. At 1.387 million B/D, deliveries were up 3.3 percent from their year-ago level, and were among their highest for any month ever. It was the fourth consecutive month in which deliveries grew on a year-to-year basis, after eight successive months of declines. Growth in passenger travel on commercial airlines has accelerated somewhat since steep fare reductions were first offered in late May. Particularly on domestic routes, air travel has seen a rather dramatic turnaround—although higher load factors have cushioned the impact on miles flown. Down about 1 percent through the first five months of the year, domestic passenger travel is estimated to have grown by about 10 percent in June and July. However, aircraft miles flown on these routes increased more in the 3-4 percent range, as planes were generally filled closer to capacity. System wide, including international traffic, growth in miles flown has been slightly higher in recent months as well, perhaps in the 5-6 percent range—moderately higher than the increase in jet kerosine deliveries.

Residual Fuel Oil

SHRINKING DEMAND LEADS TO ANOTHER RECORD LOW.

Moderate summer weather, declines in electricity generation, and more competitive natural gas prices all contributed to resid's continued slide in July. At 918 thousand B/D, deliveries were off nearly 18 percent, year to year, during the month, reaching another post-WWII low. On a weather-adjusted basis, however, declines were closer to 10 percent.

In recent years, resid deliveries during July have been higher, on average, than during any other non-winter month, as space cooling needs have pushed electricity demand up. However, with the number of cooling degree days in the East falling by more than a third from last July, electricity demand in the New England and Mid-Atlantic states fell roughly 5 percent, year to year, during the month. Resid likely bore a disproportionate share of the decline in electricity output. What's more, after similarly moderate weather in June, non-primary inventories are thought to have been relatively high entering the month, allowing some utilities to put off purchases. Warmer weather in Florida, and increased calls on resid-fired capacity in that state, only partially offset the declines in the Northeast.

Demand indicators were only slightly better in industrial markets. Government figures on industrial output were up, year to year, during June (the most recent month available). However, the 0.8 percent increase from last June trailed the 2.3 percent increases seen in recent prior months.

The one-year anniversary of the implementation of a 8.25 percent sales tax on bunker fuels in California was marked in mid-July. By some estimates, the tax pushed more than half of the

state's roughly 160 thousand B/D of resid bunker demand beyond its borders (a not-insignificant portion of which is believed to have left the country). While ocean-borne trade (particularly energy) is believed to have been up year to year—thus buoying resid bunker demand—the impact of the bunker tax would appear to be the more dominant factor.

Other Oils

PREVIOUS GROWTH FALTERS IN PAST TWO MONTHS.

July's deliveries for the "other oils" category, as with deliveries as a whole, continued the weakness of June. Deliveries were off an estimated 3.8 percent from a year ago in July, similar to June's decline. Whether the weakness of the past two months signifies a downward shift in the moderate upward growth trend of earlier in the year remains to be seen. But for a product category that has tended to be stronger than petroleum deliveries as a whole over the last several years, a weakening in deliveries of "other oils" would be a noteworthy departure from the prior pattern.

SUPPLY [1]

Production

CRUDE DROPS 2.7 PERCENT.

Domestic crude oil production dropped 2.7 percent or 200 thousand B/D in July from a year ago, continuing the decline trend that resumed in the middle of last year after having briefly stabilized in the first part of 1991. The drop for Alaska, at close to 120 thousand B/D or 6.6 percent, was larger than in recent months, but was partially offset by a smaller-than-typical decline in the lower 48 of 1.5 percent. For the year to date, domestic crude oil production's drop still amounted to 240 thousand B/D or 3.2 percent.

Drilling activity continued to slide as well, according to the most recent API estimates of well completions. Overall, well completions in the first half of 1992 were off more than 20 percent from one year earlier. Even so, the decline for drilling as a whole was moderated by a less extreme dropoff for dry holes, with oil and gas completions each dropping by 25 percent or more.

Imports

IMPORTS EXCEED 50 PERCENT—AGAIN.

July's imports topped 8.5 million B/D for the first time in almost a year—and put total imports' share of domestic deliveries at 50.9 percent, exceeding the half-way mark for the eighth time in the past three years. (On a monthly basis, imports had surpassed 50 percent of deliveries once in 1989, four times in 1990, and twice last year). Imports exceeded the half-way point in all of these instances partly as a result of above-trend imports or below-trend deliveries. However, just as a sunbather is increasingly likely to get splashed by a strong wave as the tide rises, the frequency of the occurrence has tended to parallel the trend in underlying import dependency. We estimate that underlying dependency so far in 1992 has been running at 45-46 percent.

Historical estimates of this underlying dependency (essentially adjusting for unusual inventory movements and typical seasonal patterns), show that, for example, it was running at around 45 percent in the late 1970s, declined to the low 30s in the mid-1980s, and rose to 46-47 percent in 1989. After a slight drop in the past two years because of the fall-off in petroleum consumption, the trend, we estimate, has begun to again rise gradually as domestic production has declined.

The main component of July's jump in imports was crude oil, which, at nearly 6.8 million B/D, was at a level among the highest observed since the late 1970s. Product imports, on the other hand, were actually off 1.7 percent from a year ago, and at less than 1.8 million B/D, were not outside the range of the past twelve months.

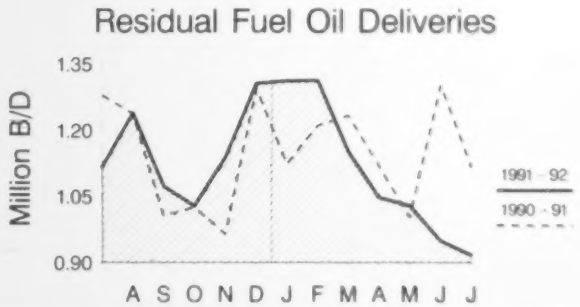
Imports of finished gasoline were up nearly 120 thousand B/D from a year ago to 350 thousand B/D, though the 150 thousand B/D drop in residual fuel oil deliveries, reflecting weak demand, more than offset gasoline's gain. Distillate imports were up 80 thousand B/D to 235 thousand B/D, while imports of other products were off 80 thousand B/D or 8 percent.

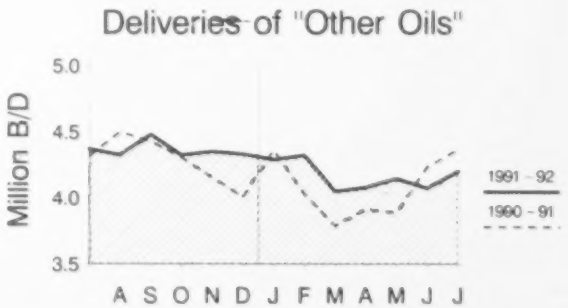
Refinery Operations

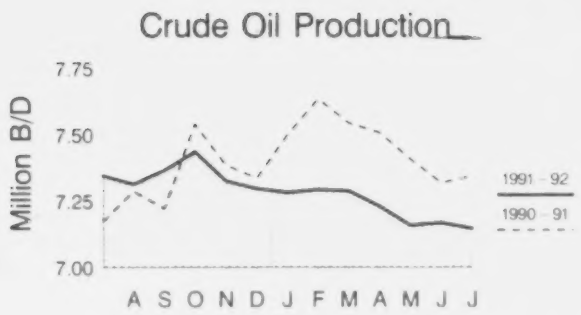
STRONG RUNS BUT GASOLINE OUTPUT STILL DECLINES.

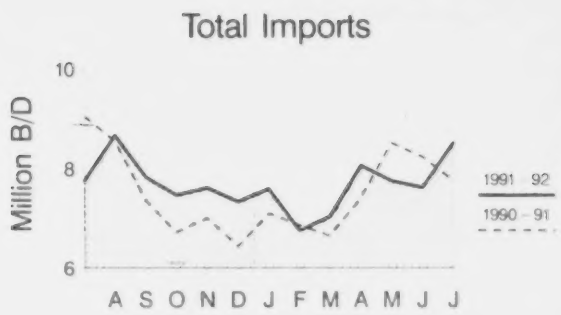
Refinery activity continued at a relatively strong pace in July. Input to distillation units in June and July has been at the highest rates in nearly two years, and utilization of capacity in actual operation has been running at an estimated 94-95 percent. (As a percent of reported capacity, utilization has approached nearly 92 percent for the past two months).

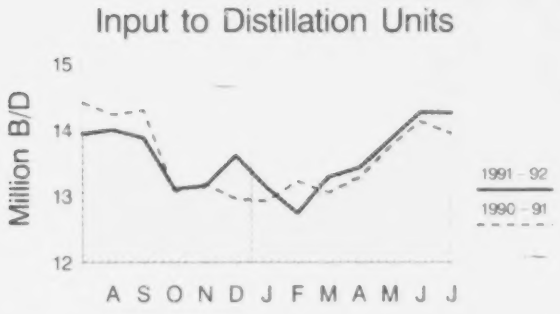
Refinery yield patterns continued to reflect the relative strengths of demand among the major products. Gasoline production slipped 1.3 percent from last July, while output of distillate fuel oil, with yields running a bit higher than average for mid-summer, was up 3.4 percent. Residual fuel oil production was off by over 9 percent to less than 800 thousand B/D—the lowest level in seven years. Meanwhile, kerosine jet fuel output, reaching nearly 1.4 million B/D, rose over 8 percent.

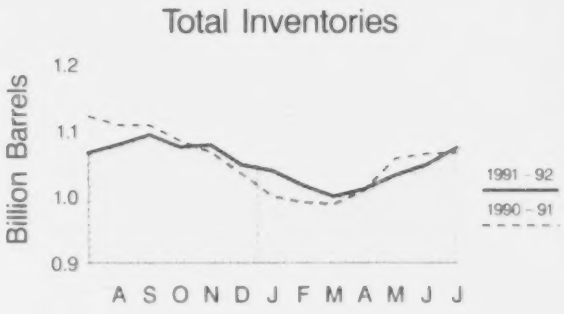












Inventories

STOCKS RISE OVER 40 MILLION BARRELS IN PAST TWO MONTHS. Inventories, rising 26 million barrels in July, continued to build more than seasonally, as they had in June. For June and July combined, total stocks have risen 42 million barrels, or about 25 million barrels more than the recent-year average, reaching more typical levels for the end of July than had been apparent in recent prior months.

Despite the surge in crude oil imports, crude stocks rose only slightly to 330 million barrels, and were still about 15 million barrels below average for the month. Gasoline stocks fell 5 million barrels to 218 million barrels, a level still about average for the end of July. Distillate stocks rose a not-so-unusual 12 million barrels, but at 115 million barrels, they were still at the low end of the range for month-end stocks of recent Julys.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 570 million barrels as of July 31, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	JULY			YEAR-TO-DATE		
	1992[1]	1991[2]	% Change	1992[3R]	1991[2]	% Change
Products Supplied:						
Total motor gasoline	7,503	7,561	(0.8)	7,219	7,159	0.8
Finished leaded motor gasoline/*	105	291	(63.9)	122	276	(55.8)
Finished unleaded motor gasoline/*	7,398	7,270	1.8	7,097	6,883	3.1
Naphtha-jet	157	166	(5.4)	151	173	(12.7)
Kerosine-jet	1,387	1,343	3.3	1,272	1,277	(0.4)
Distillate fuel oil	2,748	2,648	3.8	2,995	2,908	3.0
Residual fuel oil	918	1,117	(17.8)	1,103	1,158	(4.7)
All other oils[4]	4,204	4,370	(3.8)	4,166	4,085	2.0
Reclassified[5]	-173	-234	(26.1)	-185	-240	(22.9)
Total domestic products supplied	16,744	16,971	(1.3)	16,721	16,520	1.2
Exports	911	963	(5.4)	939	1,047	(10.3)
Total products supplied	17,655	17,934	(1.6)	17,660	17,567	0.5
Supply:						
Domestic production:						
Crude oil[6]	7,147	7,347	(2.7)	7,225	7,465	(3.2)
Natural gas liquids	1,673	1,622	3.1	1,690	1,656	2.1
Other supply[7]	1,164	1,255	(7.3)	1,241	1,081	14.8
Total domestic supply	9,984	10,224	(2.3)	10,156	10,202	(0.5)
Imports:						
Crude oil, total[8]	6,745	5,955	13.3	5,863	5,734	2.2
Canadian	863	615	40.3	809	741	9.2
Other	5,882	5,340	10.1	5,054	4,993	1.2
Products, total	1,770	1,801	(1.7)	1,764	1,779	(0.8)
Residual fuel oil	272	420	(35.2)	347	416	(16.6)
Other	1,498	1,381	8.5	1,417	1,363	4.0
Total imports	8,515	7,756	9.8	7,627	7,513	1.5
Total supply	18,499	17,980	2.9	17,783	17,715	0.4
Stock change, all oils	844	46	******	123	148	******
Refinery Operations						
Input to crude oil distillation units	14,261	13,941	2.3	13,578	13,474	0.8
Operable capacity	15,567	15,694	(0.8)	15,627	15,695	(0.4)
Refinery utilization (%)[9]	91.6	88.8	3.2	86.9	85.8	1.3
Crude oil runs	14,024	13,703	2.3	13,364	13,261	0.8

Stocks (millions bbls.)	1992		1991[2]	% Change from	
	Jul. 31[10]	Jun. 30[10]	Jul. 31	Previous month	Year ago
Crude oil[6]	330.1	328.2	342.1	0.6	(3.5)
Unfinished oils	100.5	103.9	110.0	(3.3)	(8.6)
Total motor gasoline/**	218.4	222.9	208.5	(2.0)	4.7
Finished leaded motor gasoline/*	4.1	3.8	7.2	7.9	(43.1)
Finished unleaded motor gasoline/*	178.1	181.4	164.3	(1.8)	8.4
Naphtha-jet	5.1	5.7	5.8	(10.5)	(12.1)
Kerosine-jet	40.6	39.5	41.2	2.8	(1.5)
Distillate fuel oil	115.1	103.4	124.7	11.3	(7.7)
Residual fuel oil	38.3	39.4	43.7	(2.8)	(12.4)
All other oils	226.6	205.6R	190.5	10.2	19.0
Total all oils	1,074.7	1,048.6R	1,066.5	2.5	0.8

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-May, DOE, June-July, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blendingcomponents stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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SEPTEMBER 17, 1992

AUGUST 1992

SUMMARY

In contrast with the substantial losses of homes and community infrastructure from Hurricane Andrew, which swept through Florida and the Gulf Coast in late August, largely temporary disruptions in refinery activity and domestic production had only a modest impact on the month's supply figures.

The storm's effect on petroleum industry activity, though mostly short in duration, was widespread throughout the Gulf Coast—mainly via the impact of temporary slowing or shutting in of wells and refineries and other precautionary measures. Roughly 5 percent of offshore platforms were reported to have been damaged, however, and with the offshore Gulf's nearly 4,000 platforms accounting for roughly 15 percent of lower 48 crude oil production and about 30 percent of natural gas production, damage was estimated in the hundreds of millions of dollars.

Nevertheless, at month-end, all but about 250 thousand B/D of offshore crude oil production was reported to have been restored, and much of the 2.5-2.75 billion cubic feet/day shortfall in gas production was expected to be restored within several weeks. We estimate the hurricane's effect on crude oil production for August as a whole at 80-100 thousand B/D. The effect on refinery activity for the month was modest, since for the most part refineries that were slowing or halting operations the day the storm approached were already well on the way to restoring normal operations the following day. We estimate that overall runs for the month may have been off by a percent or less from what otherwise might have occurred.

Meanwhile, deliveries continued to falter in August, falling 1.8 percent versus a year ago—among the weakest monthly showings so far this year. Much of the decrease was concentrated in residual fuel oil, which continued the large declines of prior months and fell 30 percent from last August. The only major product to show an increase was kerosine jet fuel, which rose 3.4 percent in a continuation of its relative strength versus the other major products. Gasoline deliveries, which have been flat to down versus a year ago since May, fell 0.6 percent in August. Distillate deliveries were below what recent trends would have suggested, dropping 2.5 percent.

August's petroleum imports, however, though down from July's 8.5 million B/D, were still relatively strong. Even though they fell 7 percent from last August's unusually high level, at 8.1 million B/D, this August's imports were still running at roughly 400 thousand B/D above the 1992 average through July.

Total stocks rose 6 million barrels, or about average for August, keeping overall inventory levels towards the low end of recent experience for this time of year. Crude oil stocks, drawn down in the last week of the month by temporary, hurricane-related delays in imports and curtailed offshore production, dropped 4 million barrels for the month to 327 million barrels, towards the lower end of recent experience. Gasoline stocks fell 15 million barrels to a relatively low 203 million barrels (but which does not include substantial amounts of oxygenate blending components), while distillate stocks rose 9 million barrels to 124 million barrels, a level typical for the end of August.

PRODUCT SUPPLIED [1]

Gasoline

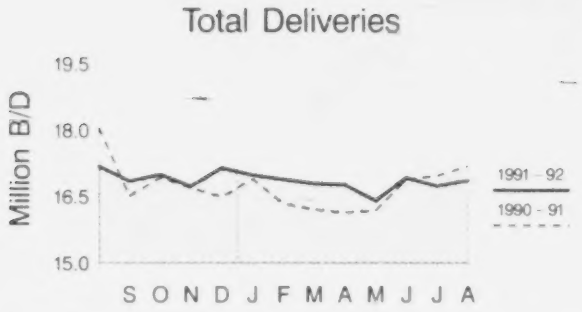
A SLOW SUMMER FOR DEMAND. Gasoline deliveries since May have more often than not shown year-to-year declines, and August's continued the pattern. The drop for August amounted to 0.6 percent.

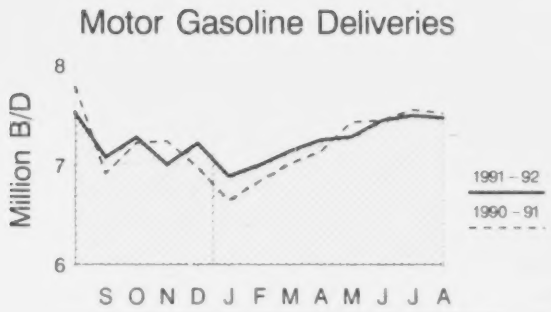
For the summer as a whole, deliveries turned out marginally weaker than many analysts had anticipated. For June through August, they averaged only 7.48 million B/D, down half a percent from a year ago and down 1.7 percent from two years ago. In fact, one has to go back five years, to 1987, to find a comparably-low level of deliveries.

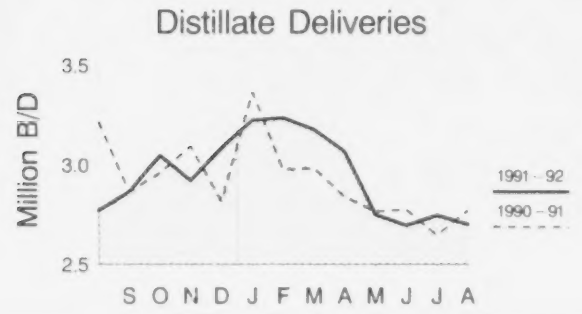
Of the usual economic factors used to explain changes in demand, price has played little role because retail price levels, in real terms, have been relatively stable over the past several summers. We estimate that for the June-August period this year, retail unleaded regular averaged about $1.175 per gallon—marginally higher than last summer's $1.142 per gallon in nominal terms, but essentially the same on an inflation-adjusted basis. Over the past five years, average summer gasoline prices, on an inflation-adjusted basis, have ranged only from around $1.15 to $1.23 in today's dollars.

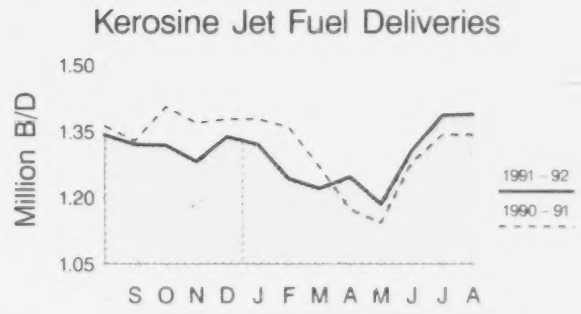
API ESTIMATES

	AUGUST		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.9	(1.8)	16.8	1.2
Crude production[2]	7.0	(4.3)	7.2	(3.4)
Total imports[2]	8.1	(7.0)	7.7	0.5
Stocks (million bbl)[2]	1,066	(1.2)	na	na









Rather, the sluggish economy, combined with continuing improvement in overall fleet efficiency, have been the main factors dampening gasoline demand. Year-to-year increases in travel in recent months have averaged only around 2 to 3 percent, and June's 1.8 percent increase (the latest data available) slipped below 2 percent for the first time this year. This contrasts with growth of 4 to 5 percent per year prior to the beginning of the most recent economic slowdown. Though travel has been growing in recent months, it has been rising barely enough to overcome the fuel efficiency effect, and consequently, deliveries have been flat to declining.

Distillates

DELIVERIES SLIP BELOW TREND IN AUGUST.

Distillate deliveries were unusually weak in August, dropping 2.5 percent versus the same month last year—in contrast to an average 2.6 percent increase for the first seven months of the year. With economic activity continuing to show some, though admittedly modest, year-to-year growth, transportation demand, particularly highway diesel, is believed to be continuing to rise. This is believed to have been coming more from highway transport than from rail traffic, which of late has been only flat versus a year ago.

Thus, despite August's decline in deliveries versus a year ago, demand is estimated to have been modestly higher. We estimate that distillate deliveries for the month were perhaps 100 thousand B/D below the recent trend; had they been more in line with the recent deliveries pattern, the year-to-year comparison would have amounted to a slight increase.

Kerosine Jet Fuel

GROWTH IN AIR TRAFFIC BOOSTS DEMAND.

For the second consecutive month, jet kerosine deliveries approached the 1.4 million B/D mark during August, as commercial air travel, already at its seasonal high, was further stimulated by the continued ticket discounts offered by most domestic airlines. Deliveries, at 1.389 million B/D, were up 3.4 percent, year to year, and approached their record high.

On only three occasions have jet kerosine deliveries surpassed the levels seen in August—twice during the severe 1989-1990 winter, when jet fuel was blended with diesel and heating fuels, and once during the fall of 1990, when Desert Shield's massive airlift to the Persian Gulf brought a spike in demand. Excepting these months, August's deliveries were the highest ever. And they would likely have been greater still were U.S. airlines not able to accommodate a significant portion of the increased number of travelers on existing flights (thus holding down fuel demand). Despite year-to-year passenger travel growth in the 10-12 percent range in July and August, growth in miles flown was kept in the 4-5 percent range, as load factors, nearing 75 percent, were among the highest ever.

Residual Fuel Oil

DELIVERIES FALL TO LESS THAN 900 THOUSAND B/D.

Moderate summer weather and the effects of Hurricane Andrew both worked against already-weak residual fuel deliveries during August. Down more than 20 percent year to year during the previous two months, deliveries fell an even more dramatic 30 percent during August, plunging below the 900 thousand B/D mark for the first time in five decades.

To date, the summer of 1992 has been the coolest in the U.S. since 1915, and is the third coolest on record. For those regions of the country where resid use by utilities is concentrated, weather has been particularly mild. In New England, the Mid-Atlantic states, and Florida, the number of cooling degree days through August were down 41 percent, 30 percent, and 13 percent, respectively, year to year—declines roughly equaled during August. The mild weather had an impact on space cooling needs and contributed to the estimated 5 percent year-to-year decline in power generation in the Northeast during the month. A disproportionate share of the decline in generation is believed to have been absorbed by peak-load resid generating units.

Hurricane Andrew exacerbated the effects of mild weather on resid deliveries. On the supply side, refinery production was reduced and imports from Latin American suppliers (particularly in the Bahamas) were likely temporarily curtailed. On the demand side, extended power outages in South Florida, where utilities are heavier than average users of resid, were a factor. And although the storm temporarily knocked off more than 2.5 billion cubic feet per day of natural gas production in the Gulf, any resulting short-term boost in heavy fuel oil demand was apparently more than overcome by negative demand influences.

The most recent figures published by the Department of Energy confirm resid's continued market share losses both to natural gas and nuclear generation. Through May, petroleum net-generation was off more than 15 percent nationwide (and the losses were accelerating) while nuclear generation was up about 2 percent and gas generation up nearly 5 percent.

Other Oils

A REBOUND FROM JULY'S LEVELS. Deliveries of "other oils", which had been off significantly last month versus a year ago, seemed to at least partially recover in August, with deliveries for the month rising 3.7 percent versus a year ago. For the year to date, deliveries are estimated to be up 3.6 percent, or more than 2 percentage points greater than for petroleum deliveries as a whole.

Deliveries by product, for which data are now available for the first half from the Department of Energy, show that most individual products in this category have experienced year-to-year increases for the first six months of 1992. Of the roughly 200 thousand B/D, 4.9 percent increase, deliveries of petroleum coke, with a shift away from exports to domestic markets, and liquefied petroleum gases accounted for more than half.

SUPPLY [1]

Production

ANDREW TEMPORARILY CURTAILS OUTPUT. Hurricane Andrew's effect on domestic crude oil production in August was mostly, though not entirely, short-term. With offshore Gulf Coast production from close to 4,000 platforms accounting for roughly 15 percent of lower 48 crude oil production and about 30 percent of natural gas production, precautionary moves to temporarily close down platforms had a widespread, but short-term, impact on domestic oil and gas output.

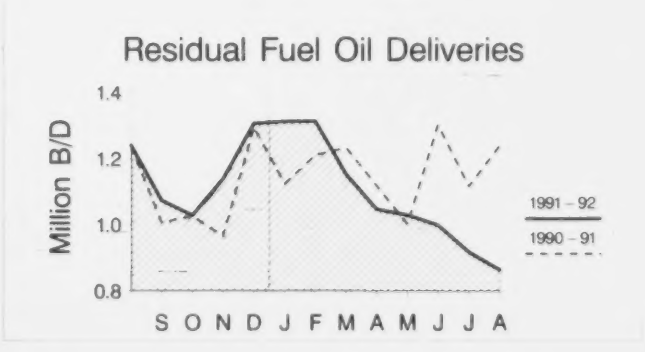
Although shut-ins began several days before the storm hit, once the storm had past, activity to restore production moved quickly. By early September, roughly a week after the tropical storm had past, all but about 250 thousand B/D of crude oil production, or about 4 percent of U.S. output, had been restored, according to government estimates. Natural gas production, still off by and estimated 2.5-2.75 billion cubic feet/day at month-end, or about 5 percent of U.S. production, was harder hit, but much of this was expected to be restored within several weeks. Though the number of rigs damaged amounted to about 5 percent of the total in the Gulf, given the substantial total investment in Gulf Coast offshore activity, overall damage has been estimated in the hundreds of millions of dollars.

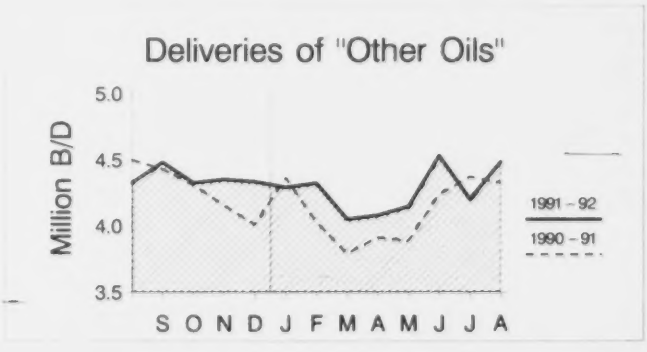
We estimate August's average crude oil production figure was reduced by 80-100 thousand B/D from what it otherwise would have been because of the largely temporary effects of the storm. Lower 48 production as a whole averaged an estimated 5.37 million B/D, down 3.8 percent or 215 thousand B/D from a year ago.

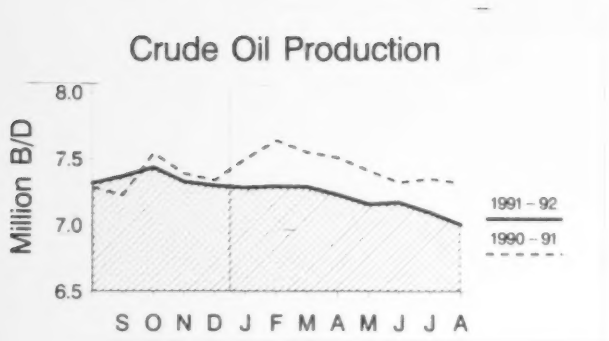
Meanwhile, Alaskan production, though far from developments in the Gulf, dropped to its lowest level in two years, off by 5.5 percent or close to 100 thousand B/D versus a year ago. Overall U.S. crude oil production fell 4.3 percent or 311 thousand B/D versus a year ago for August.

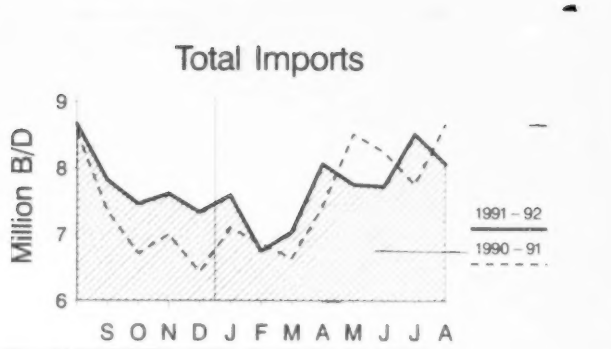
Imports

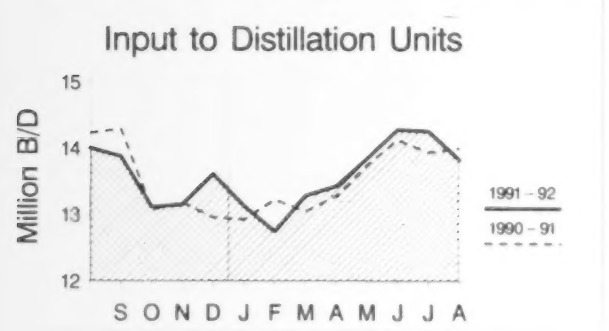
STILL REASONABLY STRONG IN AUGUST. Despite temporary delays due to Hurricane Andrew late in the month, August's total imports were still relatively strong. It is true that the month's imports, at 8.1 million B/D, were off 7 percent from last August's strong 8.7 million B/D—which at the time had been the highest in more than a year—and were down from July's 8.5 million B/D as well. But

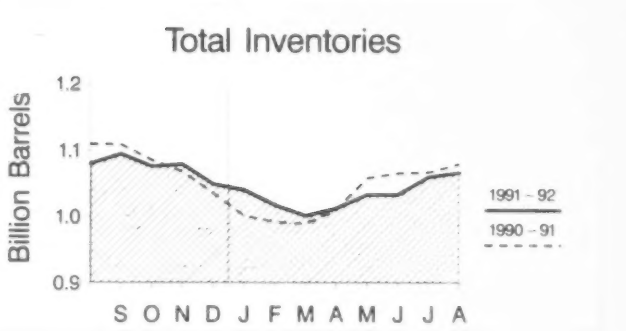












compared with the January-July average of about 7.6 million B/D, August's imports were still running roughly 400 thousand B/D higher.

Crude imports, compared with July, dropped about 500 thousand B/D to 6.3 million B/D, while product imports stayed roughly level at 1.8 million B/D. Distillate imports, at 244 thousand B/D, were at the highest level in more than a year and about 80 thousand B/D higher than a year ago. Kerosine jet fuel imports, which have been gradually strengthening along with domestic demand this year, rose to over 80 thousand B/D. This was up from levels of around 30 thousand B/D at the beginning of the year and slightly ahead of a year ago.

On the other hand, gasoline imports, which had ranged as high as 430 thousand B/D earlier this year, dropped to 223 thousand B/D. This was their lowest level so far in 1992, and was off by more than 160 thousand B/D from a year ago. Given dwindling demand for residual fuel oil, it is hardly surprising that imports of this product have dropped as well. August's imports of resid were off by over 190 thousand B/D from a year ago to 411 thousand B/D. For products as a whole, imports were 10.7 percent lower than a year ago in August.

Refinery Operations

HURRICANE'S IMPACT WAS MODERATE. As with domestic production, the effects of Hurricane Andrew on Gulf Coast refinery operations were broad in scope, but were largely short in duration—mostly precautionary slowdowns and shutdowns, though there were sporadic problems with electricity supply in restarting some refineries, among other factors. Most refineries that were slowing down or halting operations the day the storm was approaching were well on the way to resuming normal operations the following day.

The area around the Gulf Coast (PAD III) accounts for roughly 40 percent of U.S. refining capacity, and an estimated two-thirds of this capacity was affected in some way by Andrew. According to API weekly data, refinery runs in PAD III, for the week of the storm, were down about 7 percent or 400 thousand B/D from the first three weeks of August. Nevertheless, we estimate that overall U.S. refinery activity, as well as production of major products, were off by a percent or less for the month as a whole, compared with what otherwise might have occurred without the storm.

For August as a whole, country-wide input to distillation units was off 1.2 percent from a year ago, with product output continuing to reflect to some extent the relative demand strengths of the various products. Gasoline output continued to lag year-ago levels, as it has all summer, dropping 5.3 percent from last August. Distillate output, which had been running 2 to 3 percent ahead of a year ago in June and July, was off 0.7 percent for the month. Utilization of capacity in actual operation averaged around 93 percent for the month, down from 97 percent in June and 94-95 percent in July. In terms of reported capacity, utilization averaged 88.8 percent.

Inventories

CRUDE DECLINES, BUT TOTAL STOCKS RISE. Total inventories ended the month 6 million barrels higher than the previous month, about an average rise for August. Crude stocks, however, dropped 4 million barrels from the end of July, largely due to a drop of about 7 million barrels near the end of August related to Hurricane Andrew. A temporary curtailment in crude oil imports, including closing of the Louisiana Offshore Oil Port for four days, along with evacuation of offshore platforms, served to reduce the inflow into inventories by perhaps 10 million bar-

rels—but curtailments in refinery activity reduced inventory draws as well. At 327 million barrels, month-end crude stocks were near the bottom end of the 320-355 million barrel range of the past year or two.

The effects of tropical-storm-related developments on product stocks are estimated at only 1-2 million barrels each for gasoline and distillate, due to the relatively short down-time for most refineries on the Gulf Coast. For the month as a whole, gasoline stocks fell 15 million barrels, to 203 million barrels, the lowest level since last October. However, it should be noted that gasoline inventory figures do not include more than 20 million barrels of MTBE and other oxygenate blending components, though these will now constitute a significant and growing portion of domestic gasoline supply.

Meanwhile, distillate stocks rose 9 million barrels, or about twice the recent-year average, to 124 million barrels, close to average for the end of August.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 570 million barrels as of August 31, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	AUGUST			YEAR-TO-DATE		
	1992[1]	1991[2]	% Change	1992[3R]	1991[2]	% Change
Products Supplied:						
Total motor gasoline	7,480	7,528	(0.6)	7,253	7,206	0.7
Finished leaded motor gasoline/*	110	280	(60.7)	118	276	(57.2)
Finished unleaded motor gasoline/*	7,370	7,248	1.7	7,135	6,930	3.0
Naphtha-jet	127	200	(36.5)	144	177	(18.6)
Kerosine-jet	1,389	1,343	3.4	1,288	1,286	0.2
Distillate fuel oil	2,702	2,770	(2.5)	2,949	2,890	2.0
Residual fuel oil	864	1,240	(30.3)	1,079	1,168	(7.6)
All other oils[4]	4,483	4,325	3.7	4,263	4,116	3.6
Reclassified[5]	-178	-223	(20.2)	-180	-238	(24.4)
Total domestic products supplied	16,867	17,183	(1.8)	16,796	16,605	1.2
Exports	936	837	11.8	942	1,020	(7.6)
Total products supplied	17,803	18,020	(1.2)	17,738	17,625	0.6
Supply:						
Domestic production:						
Crude oil[6]	7,005	7,316	(4.3)	7,190	7,446	(3.4)
Natural gas liquids	1,690	1,627	3.9	1,693	1,652	2.5
Other supply[7]	1,245	827	50.5	1,232	1,049	17.4
Total domestic supply	9,940	9,770	1.7	10,115	10,147	(0.3)
Imports:						
Crude oil, total[8]	6,257	6,645	(5.8)	5,927	5,850	1.3
Canadian	740	694	6.6	785	735	6.8
Other	5,517	5,951	(7.3)	5,142	5,115	0.5
Products, total	1,809	2,025	(10.7)	1,768	1,810	(2.3)
Residual fuel oil	411	599	(31.4)	364	439	(17.1)
Other	1,398	1,426	(2.0)	1,404	1,371	2.4
Total imports	8,066	8,670	(7.0)	7,695	7,660	0.5
Total supply	18,006	18,440	(2.4)	17,810	17,807	0.0
Stock change, all oils	203	420	******	72	182	******
Refinery Operations						
Input to crude oil distillation units	13,831	14,005	(1.2)	13,608	13,541	0.5
Operable capacity	15,567	15,724	(1.0)	15,616	15,699	(0.5)
Refinery utilization (%)[9]	88.8	89.1	(0.3)	87.1	86.3	0.9
Crude oil runs	13,637	13,800	(1.2)	13,397	13,330	0.5

Stocks (millions bbls.)	1992		1991[2]	% Change from	
	Aug. 31[10]	Jul. 31[10]	Aug. 31	Previous month	Year Ago
Crude oil[8]	326.6	330.1	345.3	(1.1)	(5.4)
Unfinished oils	96.5	100.5	107.8	(4.0)	(10.5)
Total motor gasoline/**	203.4	218.4	208.7	(6.9)	(2.5)
Finished leaded motor gasoline/*	3.9	4.1	6.5	(4.9)	(40.0)
Finished unleaded motor gasoline/*	163.5	178.1	165.2	(8.2)	(1.0)
Naphtha-jet	5.0	5.1	5.3	(2.0)	(5.7)
Kerosine-jet	41.9	40.6	42.3	3.2	(0.9)
Distillate fuel oil	124.4	115.1	131.4	8.1	(5.3)
Residual fuel oil	41.0	38.3	45.8	7.0	(10.5)
All other oils	227.4	211.8R	192.9	7.4	17.9
Total all oils	1,066.2	1,059.9R	1,079.5	0.6	(1.2)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-June, DOE, July-August, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components

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Monthly Statistical Report

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SUMMARY

For the third quarter, total deliveries experienced their first quarterly decline in more than a year—and fell to their lowest third-quarter level in three years. Even with the backdrop of a slack economy, deliveries had increased around 2 percent or so in recent prior quarters, and most analysts had expected consumption to about equal last year's third quarter level. Thus, the 0.7 percent decline, to less than 16.9 million B/D, was disapointing. Excluding even-weaker-than-usual residual fuel oil deliveries, the remaining products as a group rose less than 1 percent after growing around 2.5 percent in the first half. September's total deliveries dropped as well, by 0.9 percent from a year ago.

The year-to-year decline for residual fuel oil amounted to 21 percent for both the quarter and September alone, largely as a result of weak utility demand. But deliveries of distillate fuel oil, which had averaged gains of a little over 1.5 percent in the previous quarter, also dropped in both the most recent quarter and in September, by 1.2 percent and 2.3 percent, respectively—despite other consumption indicators which suggest flat to moderate growth.

While the declines for distillate seemed to overstate the weakness in demand for this product, for gasoline the situation was reversed, particularly for September. For that month, gasoline deliveries rose 3.3 percent, despite underlying consumption which is believed to have been flat or growing only slightly. For the quarter as a whole, however, deliveries rose a more moderate 1.0 percent. Deliveries of kerosine jet fuel were only flat versus a year ago for the quarter and up only about 1 percent for the month.

Despite the slackness in demand, total petroleum imports rose to over 8.3 million B/D in the third quarter—their highest quarterly level in two years. As a percentage of domestic deliveries for the three-month period, they amounted to 49.2 percent—approaching the recent-year high of 49.8 percent reached in the first and second quarters of 1990. We estimate that the underlying trend in imports, however, has currently been around 7.7-7.8 million B/D, or roughly 45-46 percent of domestic deliveries, and has been growing at a rate of about 6 percent per year.

Meanwhile, in its largest year-to-year drop in more than two years, domestic crude oil production fell 5 percent or about 370 thousand B/D year to year in September. However, an estimated 50-90 thousand B/D of the decline was believed to be due to the after-effects of Hurricane Andrew on Gulf of Mexico production, where recovery was still in progress. For the quarter, production fell more than 310 thousand B/D or 4.3 percent.

Input to distillation units for both September and the quarter were only marginally ahead of year-ago levels. September's gasoline output, however, contrasting with the typical seasonal pattern, rose moderately from August's level to almost 7.1 B/D, likely reflecting the blending of MTBE and other oxygenates into gasoline in order to fill the distribution system in time for the regulatory deadline for oxygenated gasoline (November 1 in most cases).

Total stocks rose a more-than-seasonal 22 million barrels in September, bringing inventory levels up closer to average levels for September. Crude stocks remained at the low end of their historical range, but distillate stocks, rising 7 million barrels, were within the normal range for the month.

PRODUCT SUPPLIED [1]

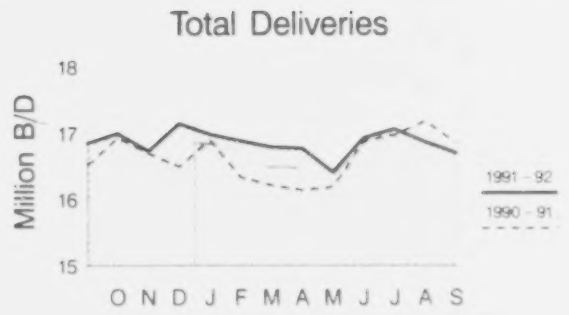
Gasoline

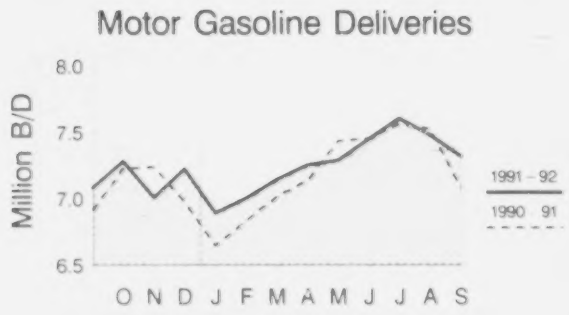
SEPTEMBER GAIN OVERSTATES GROWTH IN CONSUMPTION.

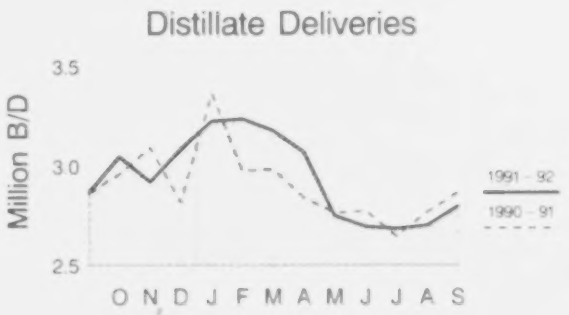
Despite a larger-than-usual, 3.3 percent increase in gasoline deliveries for September, deliveries for the quarter rose a more moderate 1.0 percent. Though these gains followed a marginal decline in the second quarter, other data hardly suggest any strengthening in underlying gasoline demand. With the erratic signs on economic growth—in fact, the leading indicators, retail sales, factory orders, and unemployment, among others, have all been flat to negative in recent months—little if any growth in gasoline usage is suggested.

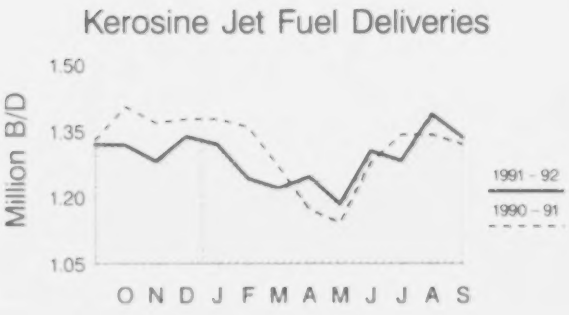
The most recent data on miles traveled, too, hint at slack gasoline demand. Year-to-year growth in miles traveled has averaged around 2-3 percent in recent months, and July's data showed a 2.6 percent increase, implying little to no growth in gasoline consumption once increased fleet efficiency is considered. On a seasonally-adjusted basis, travel in the most recent months available (that is, through July) have shown signs of weakening, though so far it is unclear whether this represents an aberration or an actual flattening of the trend. One explanation may be that discretionary

	API ESTIMATES SEPTEMBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	(0.9)	16.8	1.1
Crude production[2]	7.0	(5.0)	7.2	(3.6)
Total imports[3]	8.4	7.0	7.8	1.1
Stocks (million bbl)[4]	1,080	(1.3)	na	na









travel (vacationing, recreation, social activities, and the like), for which opportunities are typically greater in the summer, was curbed more than other types of travel by the sluggish economy. This may have depressed summer demand to a level lower than might be expected based on seasonal patterns derived from healthier economic times.

Distillates

DELIVERIES DROP FOR THE QUARTER. Distillate deliveries, after rising year-to-year over the prior three quarters, dropped 1.2 percent in the most recent quarter. This September's deliveries fell 2.3 percent from last September's levels.

Consumption indicators, on the other hand, while hardly suggesting robust growth for distillate fuel oil, at least indicate that underlying demand has not been as weak as the recent deliveries data suggest. Transportation usage, in particular, is not believed to have dropped off to any significant degree. The economy, though sluggish, is still estimated to be slightly ahead of a year ago, suggesting something similar for highway diesel usage. Rail traffic, which has vacillated from small declines to moderate growth in recent months, is estimated to have been flat in September, also suggesting relatively stable demand in that sector. And weather, though roughly 10 percent warmer than a year ago for the month, is unlikely to have had a major impact on heating oil demand this early in the season, when overall heating needs are typically still relatively light. Thus, we estimate that underlying consumption in recent months has continued to rise—though perhaps only marginally.

Kerosine Jet Fuel

TRAVEL GROWTH FAILS TO PRODUCE DELIVERIES GAIN. Deliveries of jet kerosine roughly matched year-ago levels during the third quarter. Averaging about 1.34 million B/D over the quarter, levels were slightly below what indicators of consumption, at least by airlines, would have suggested. During September, deliveries climbed 1.2 percent, year to year.

The 1992 summer vacation season brought with it appreciable year-to-year growth in air travel. Major U.S. air carriers reported double digit growth in passenger travel, with domestic travel (which had been down during the year's first half) actually growing faster than travel on international routes during the July-September period. However, airlines were able to accommodate much of the influx in passengers without adding a large number of flights. During July and August, load factors on domestic flights averaged more than 75 percent—more than 7 full points above the year ago rate. Thus, the impact of more passengers on aircraft miles flown (and consequently on jet kerosine consumption) was kept small.

Jet kerosine use is not limited to the commercial aviation sector. Private and military air craft also use it, as do some electric utilities. With scaling back of operations at U.S. military bases, with declines in output by U.S. electric utilities, and with the overall weakness in the economy, non-commercial jet kerosine demand is believed to have been weaker than for commercial airlines.

Residual Fuel Oil

DOUBLE-DIGIT DECLINES CONTINUE. Weakness in electricity demand and sluggishness in industrial output contributed to a 21.4 percent year-to-year decline in heavy fuel deliveries during the third quarter. September's rate of decline roughly equalled that seen for the quarter as a whole, but was more moderate than the rate seen in August, as higher natural gas prices, in the aftermath of Hurricane Andrew, encouraged some incremental heavy fuel purchases. Nonetheless, resid deliveries remained below the 900 thousand B/D mark during September.

Weather continued in the moderate range for the month, making the summer of 1992 one of the coolest on record. The number of cooling degree days for the nation as a whole was off more than 25 percent this cooling season versus last, with declines in the resid-intensive Northeast in excess of 35 percent. The cool weather, along with continued economic weakness, contributed to a year-to-tear decline in electricity output of about 3 percent in this region.

Declines in natural gas production resulting from platform damage sustained in the Gulf of Mexico during Hurricane Andrew served to bid up already-rising gas prices further relative to resid, likely encouraging some earlier than typical gas-to-resid substitution (or at least discouraging some of the opposite). However, part of the price advantage gained early in the month eroded at month's end.

Industrial markets, which account for about 12 percent of resid demand on an annual basis, also continue to be weak. During August (the most recent data available), the index of industrial production rose less than 1 percent, year to year, after having grown in the 2-3 percent range earlier in the year.

Other Oils

GROWTH SLOWS FOR "OTHER OILS".

Deliveries of "other oils" for the third quarter rose a scant 0.8 percent, contrasting with increases of roughly 4 percent and 6 percent in the first and second quarters, respectively. (Even excluding the large, unexplained increase for petroleum coke of roughly 25 percent shown in Department of Energy data so far in 1992, deliveries of the remainder of "other oils" still rose 2-4 percent for the first two quarters because of increases for the majority of other products in this category.)

On a seasonally-adjusted basis, as well, deliveries data had been showing a gradual rise over the first half of the year, on a month-to-month basis. However, the most recent deliveries estimates fall below what this trend would have suggested. Most likely, this has been partly due to the usual short-term variability of deliveries data. The most recent figures could also be interpreted as a flattening out of the trend, though the test of this conclusion awaits further data over the next several months.

SUPPLY [1]

Production

CRUDE FALLS BY LARGEST AMOUNT IN MORE THAN 2 YEARS.

Domestic crude oil production dropped 5 percent or 370 thousand B/D year to year in September, its largest monthly year-to-year decline in more than two years. An estimated 50-90 thousand B/D of the decline, however, was believed to be due to the after-effects of Hurricane Andrew on Gulf of Mexico production, where some facilities were still in the process of recovery. For the quarter, production fell more than 310 thousand B/D or 4.3 percent.

Alaskan production has continued to decline so far this year, falling 100 thousand B/D or 5.7 percent for the third quarter versus a year ago. At less than 1.7 million B/D, crude oil output there has fallen by 17 percent in the past four years. The current decline trend appears to continue to be around 100 thousand B/D per year. Lower 48 output for the quarter fell 3.8 percent or more than 213 thousand B/D, though without the effects of Hurricane Andrew, we estimate the drop would have been closer to 3 percent.

Reflecting the diminishing availability of attractive drilling prospects under current economics and government restrictions, API's latest well completion estimates show a drop in well completions of 25 percent for the third quarter versus one year earlier. Oil well completions, in particular, were off over 30 percent versus a year ago—and by nearly 60 percent from five years ago. Over the past twelve months, only about 475 exploratory oil wells have been completed. In the early 1980's, that amount had been completed in two to three months.

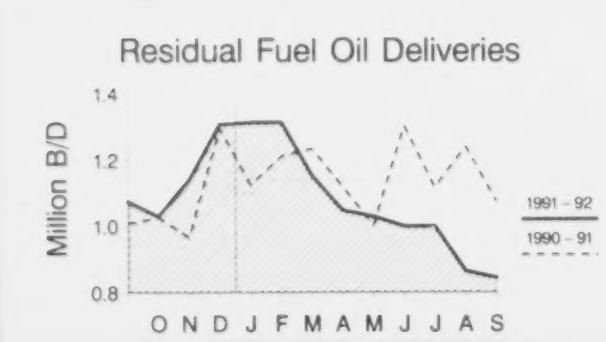
Imports

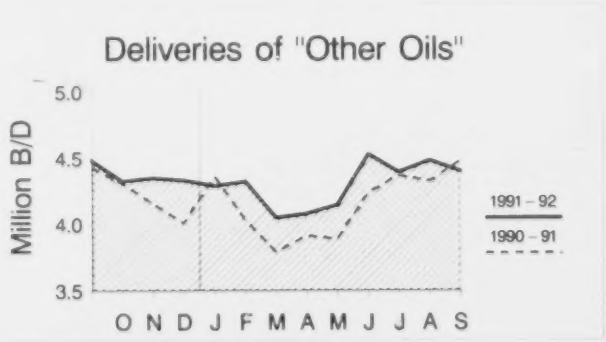
UNDERLYING RATE OF DEPENDENCY PUT AT OVER 45 PERCENT.

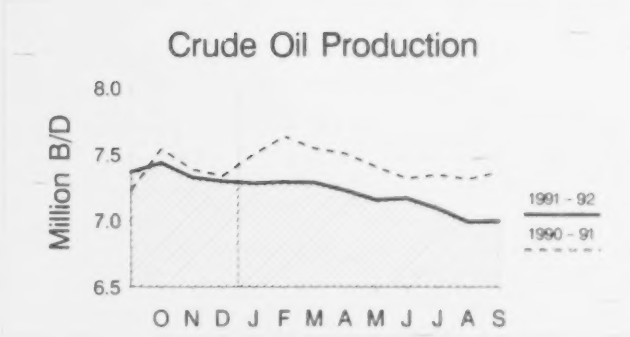
Total petroleum imports reached more than 8.3 million B/D during the third quarter, their highest quarterly level in two years. As a percentage of domestic deliveries for the quarter, they amounted to 49.2 percent—approaching the recent-year high of 49.8 percent set in the first and second quarters of 1990. Part of the quarter's imports ended up in inventory, however, indicating that the underlying need for imports was slightly less. Nevertheless, we estimate that the underlying trend in petroleum imports has been running around 7.7-7.8 million B/D, or around 45-46 percent of domestic deliveries, and growing at an annual rate of about 6 percent.

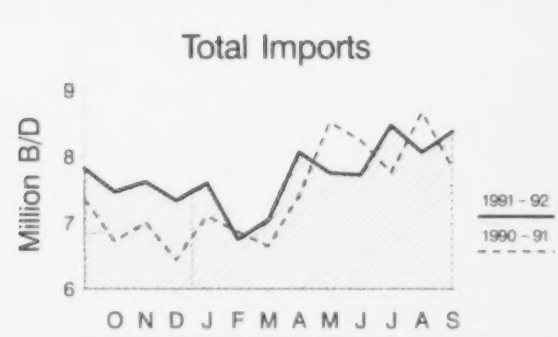
Crude oil imports have been edging up this year, reaching nearly 6.5 million B/D in the third quarter—the highest for any quarter since 1979. Product imports held relatively steady compared with the prior quarter at 1.8 million B/D, though they fell 7 percent versus year-ago levels.

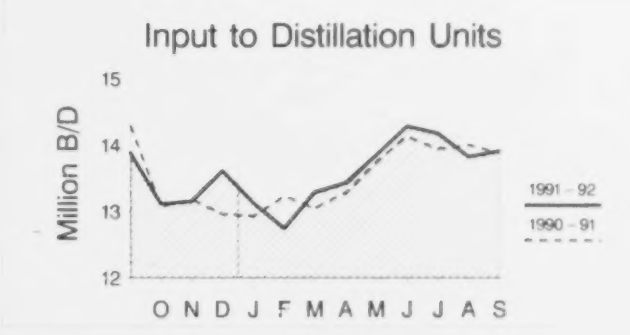
For September, however, product imports reached nearly 2 million B/D, almost equal to year-ago levels. Gasoline imports, in particular, which had been running about 300 thousand B/D so far this year, rose to nearly 450 thousand B/D, up nearly 134 thou-

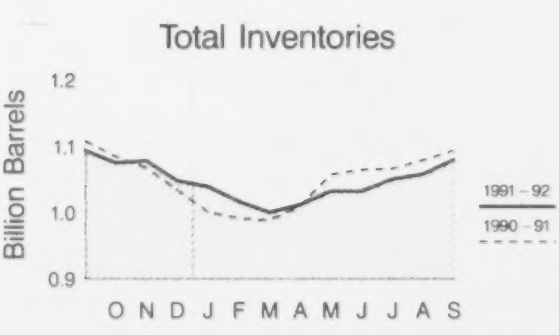












sand B/D from a year ago and their highest monthly level since May 1991. Distillate imports roughly matched those of last September at 236 thousand B/D, and residual fuel oil imports were off by more than a third to 307 thousand B/D. Kerosine jet fuel imports also dropped 10 thousand B/D to 75 thousand B/D for the month.

Refinery Operations

GASOLINE UP FOR SEPTEMBER. Input to distillation units for both September and the quarter, reflecting flat demand,were only marginally ahead of year-ago levels.

September's gasoline output, however, contrasting with the typical seasonal pattern, rose from August's level by nearly 200 thousand B/D to a bit less than 7.1 million B/D, and gasoline yields experienced a counter-seasonal rise as well. This likely reflects the blending of MTBE and other oxygenates into gasoline in order to fill the distribution system in time for the regulatory deadline for oxygenated gasoline (November 1 in most cases). As a result, gasoline production, which had averaged a 2.8 percent decline over the summer driving season, was actually up a modest 0.4 percent in September from a year ago.

Output of other major products, however, were off versus a year ago for the month. Distillate output, with supplies for the coming season apparently adequate for now, was off 1.7 percent from a year ago. Residual fuel oil output was off 6.1 percent, and kerosine jet fuel, 0.6 percent.

Utilization of capacity in operation averaged 92-93 percent in September. As a percentage of reported capacity, utilization was calculated at 89.4 percent for the month and 89.9 percent for the quarter.

Inventories

CRUDE OIL SLIPS, PRODUCTS RISE. Total inventories rose a more-than-seasonal 22 million barrels during September, or roughly 15 million barrels more than average. For the quarter as a whole, stocks have risen by nearly 50 million barrels from somewhat below average levels, putting stocks at the end of the quarter at 1,080 million barrels, or closer to average for this time of year.

Crude stocks, despite the higher import levels of the past several months, slipped by 2 million barrels from the end of August to 325 million barrels—compared with more typical September levels of 330-340 million barrels. Stocks of gasoline (including conventional blending components, but not oxygenates) rose 7 million barrels, but still amounted to only 210 million barrels. Though this falls short of the recent historical range of 216-230 million barrels for the end of September, the latest survey data indicate the availability of additional stocks in the form of MTBE and other oxygenated blending components of over 25 million barrels.

Meanwhile, distillate stocks rose 7 million barrels over August levels. At 131 million barrels, distillate inventories were about average for the month.

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2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 570 million barrels as of September 30, 1992).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	SEPTEMBER			YEAR-TO-DATE		
	1992/1	1991/2	% Change	1992/3R	1991/2	% Change
Products Supplied:						
Total motor gasoline	7,320	7,083	3.3	7,273	7,192	1.1
Finished leaded motor gasoline/*	99	255	(61.2)	117	274	(57.3)
Finished unleaded motor gasoline/*	7,221	6,828	5.8	7,156	6,918	3.4
Naphtha-jet	131	186	(29.6)	142	178	(20.2)
Kerosine-jet	1,337	1,321	1.2	1,282	1,290	(0.6)
Distillate fuel oil	2,798	2,865	(2.3)	2,926	2,887	1.4
Residual fuel oil	844	1,074	(21.4)	1,062	1,158	(8.3)
All other oils/4	4,403	4,480	(1.7)	4,299	4,156	3.4
Reclassified/5	-131	-161	(18.6)	-162	-230	(29.6)
Total domestic products supplied	16,702	16,848	(0.9)	16,822	16,631	1.1
Exports	860	785	9.6	935	995	(6.0)
Total products supplied	17,562	17,633	(0.4)	17,757	17,626	0.7
Supply:						
Domestic production:						
Crude oil/6	6,998	7,368	(5.0)	7,168	7,437	(3.6)
Natural gas liquids	1,683	1,623	3.7	1,691	1,649	2.5
Other supply/7	1,230	1,312	(6.3)	1,248	1,078	15.8
Total domestic supply	9,911	10,303	(3.8)	10,107	10,164	(0.6)
Imports:						
Crude oil, total/8	6,415	5,812	10.4	5,986	5,846	2.4
Canadian	804	849	(5.3)	780	748	4.3
Other	5,611	4,963	13.1	5,206	5,098	2.1
Products, total	1,963	2,015	(2.6)	1,779	1,833	(2.9)
Residual fuel oil	307	481	(36.2)	359	444	(19.1)
Other	1,656	1,534	8.0	1,420	1,389	2.2
Total imports	8,378	7,827	7.0	7,765	7,679	1.1
Total supply	18,289	18,130	0.9	17,872	17,843	0.2
Stock change, all oils	727	497	******	115	217	******
Refinery Operations						
Input to crude oil distillation units	13,911	13,883	0.2	13,632	13,579	0.4
Operable capacity	15,567	15,724	(1.0)	15,605	15,702	(0.6)
Refinery utilization (%)/9	89.4	88.3	1.2	87.4	86.5	1.0
Crude oil runs	13,716	13,694	0.2	13,424	13,370	0.4

Stocks (millions bbls.)	1992		1991/2	% Change from	
	Sep. 30/10	Aug. 31/10	Sep. 30	Previous month	Year Ago
Crude oil/8	324.5	326.6	340.6	(0.6)	(4.7)
Unfinished oils	99.0	96.5	111.0	2.6	(10.8)
Total motor gasoline/**	210.0	203.4	216.2	3.2	(2.9)
Finished leaded motor gasoline/*	4.1	3.9	6.6	5.1	(37.9)
Finished unleaded motor gasoline/*	166.5	163.5	171.0	1.8	(2.6)
Naphtha-jet	5.1	5.0	5.1	2.0	0.0
Kerosine-jet	42.7	41.9	44.7	1.9	(4.5)
Distillate fuel oil	131.7	124.4	140.1	5.9	(6.0)
Residual fuel oil	43.1	41.0	48.1	5.1	(10.4)
All other oils	224.1	219.6R	188.6	2.0	18.8
Total all oils	1,080.2	1,058.4R	1,094.4	2.1	(1.3)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-July,DOE, August-September, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, which will reflect withdrawls from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	3RD QUARTER		
	1992[1]	1991[2]	% Change
Products Supplied:			
Total motor gasoline	7,471	7,394	1.0
Finished leaded motor gasoline/*	108	275	(60.7)
Finished unleaded motor gasoline/*	7,363	7,119	3.4
Naphtha-jet	136	184	(26.1)
Kerosine-jet	1,337	1,336	0.1
Distillate fuel oil	2,728	2,760	(1.2)
Residual fuel oil	903	1,144	(21.1)
All other oils[3]	4,427	4,390	0.8
Reclassified[4]	-123	-206	(40.3)
Total domestic products supplied	16,879	17,002	(0.7)
Exports	909	862	5.5
Total products supplied	17,788	17,864	(0.4)
Supply:			
Domestic production:			
Crude oil[5]	7,030	7,343	(4.3)
Natural gas liquids	1,681	1,624	3.5
Other supply[6]	1,276	1,130	12.9
Total domestic supply	9,987	10,097	(1.1)
Imports:			
Crude oil, total[7]	6,490	6,141	5.7
Canadian	781	718	8.8
Other	5,709	5,423	5.3
Products, total	1,815	1,946	(6.7)
Residual fuel oil	333	500	(33.4)
Other	1,482	1,446	2.5
Total imports	8,305	8,087	2.7
Total supply	18,292	18,184	0.6
Stock change, all oils	504	320	*****
Refinery Operations			
Input to crude oil distillation units	13,974	13,944	0.2
Operable capacity	15,549	15,714	(1.1)
Refinery utilization (%)[8]	89.9	88.7	1.4
Crude oil runs	13,768	13,733	0.3

Stocks (millions bbls.)	3RD QUARTER		
	1992[9]	1991[2]	% Change
Crude oil[7]	324.5	340.6	(4.7)
Unfinished oils	99.0	111.0	(10.8)
Total motor gasoline/**	210.0	216.2	(2.9)
Finished leaded motor gasoline/*	4.1	6.6	(37.9)
Finished unleaded motor gasoline/*	166.5	171.0	(2.6)
Naphtha-jet	5.1	5.1	0.0
Kerosine-jet	42.7	44.7	(4.5)
Distillate fuel oil	131.7	140.1	(6.0)
Residual fuel oil	43.1	48.1	(10.4)
All other oils	224.1	188.6	18.8
Total all oils	1,080.2	1,094.4	(1.3)

/1 Source: U.S. Department of Energy, July: August-September, API.
/2 Source: U.S. Department of Energy.
/3 Includes crude losses.
/4 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
/5 API estimate; includes lease condensate.
/6 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/7 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/8 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/9 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.